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**NOTICE OF INTENT
FOR EXPANSION UNDER
INTERIM STATUS**

**200 AREA EFFLUENT TREATMENT FACILITY
HANFORD FACILITY,
RICHLAND, WASHINGTON**



**U.S. DEPARTMENT OF ENERGY,
RICHLAND FIELD OFFICE**

MARCH 1993

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1.0 INTRODUCTION

The Washington State Department of Ecology (Ecology) *Dangerous Waste Regulations*, Washington Administrative Code (WAC) 173-303-281, require that dangerous waste facility owners and/or operators submit a Notice of Intent (NOI) before submittal of a permit application for new or expanded dangerous waste treatment, storage, and/or disposal (TSD) units on the Hanford Facility. The following information for this NOI is being filed with Ecology by the U.S. Department of Energy, Richland Field Office (DOE-RL), the owner and operator. This NOI is to serve notice of the intent to include dangerous waste storage as part of the 200 Area Effluent Treatment Facility (ETF, formerly referred to as the 242-A Evaporator/PUREX Plant Condensate Treatment Facility and Project C-018H) located on the Hanford Facility, Richland, Washington.

An NOI was submitted in March 1990 for the *200 East Area Liquid Effluent Retention and Treatment Facility*. The March 1990 NOI dealt primarily with the treatment aspect of the unit. The dangerous waste Part A permit application for the ETF was dated June 6, 1991 and identified treatment of mixed waste in tanks as the only process involved at the ETF.

This document is to notify all concerned of a proposed change to include tank and container storage of dangerous waste as additional processes at the ETF. The ETF design, treatment capacity, location, etc., are unchanged from the original NOI. The ability to store dangerous waste is being added to ensure compliance with 90-day accumulation requirements of WAC 173-303 and the *Resource Conservation and Recovery Act (RCRA) of 1976*.

The following identifies the owner and operator of the Hanford Facility and the primary contact:

Owner and Operator: U.S. Department of Energy, Richland Field Office

Manager, Richland Field Office: Mr. John D. Wagoner

Richland Field Office Contact: Mr. J. D. Bauer

Address: U.S. Department of Energy
Richland Field Office
Post Office Box 550
Richland, Washington 99352

Telephone: (509) 376-5441

2.0 FACILITY DESCRIPTION AND GENERAL PROVISIONS

The Hanford Facility is a single RCRA facility, identified by the U.S. Environmental Protection Agency (EPA)/State Identification Number

1 WA7890008967, that consists of over 60 TSD units included in the *Hanford Site*
2 *Dangerous Waste Part A Permit Application* (DOE-RL 1988b). The Hanford
3 Facility consists of the contiguous portion of the Hanford Site that contains
4 these TSD units and, for the purposes of RCRA, is owned and operated by the
5 U.S. Department of Energy (excluding lands north and east of the Columbia
6 River, river islands, lands owned or used by the Bonneville Power
7 Administration, lands leased to the Washington Public Power Supply System, and
8 lands owned by or leased to the state of Washington). The Hanford Facility is
9 a single facility for purposes of provisions regulating offsite and onsite
10 waste handling.

11
12 The ETF will be located in the 200 East Area on the Hanford Facility.
13 The treatment process will be designed to treat waste water from the
14 242-A Evaporator and the Plutonium-Uranium Extraction (PUREX) Plant. The
15 242-A Evaporator process condensate is generated by the evaporative
16 concentration of mixed waste contained in the Double-Shell Tank (DST) System.
17 Because the PUREX Plant is nonoperational, waste from the PUREX Plant is not
18 expected to be treated at the ETF. However, because the ETF is being designed
19 with a flexible treatment system, other dilute aqueous waste streams generated
20 on the Hanford Facility will be considered for treatment at the ETF. Before
21 startup of the ETF, the 242-A Evaporator process condensate will be stored
22 temporarily in the Liquid Effluent Retention Facility (LERF).

23 24 25 **2.1 LOCATION OF PROPOSED EXPANSION**

26
27 The ETF will be located in the 200 East Area of the Hanford Facility,
28 Benton County, Washington. The Hanford Facility and the proposed design of
29 the ETF are provided in Figures 1 and 2, respectively. A large-scale map and
30 a topographic map, which meet the 1-inch-(2.54-centimeter-) equals-not-more-
31 than-200-feet (61-meters) requirement, are provided in Appendix A and include
32 the following:

- 33
34 • Overall Hanford Facility (H-6-958)
- 35
36 • Topographic map of the ETF (H-13-000081), including the surrounding
37 1,000 feet (305 meters). There are no existing or planned injection
38 or water supply wells in the vicinity of the ETF. There are four
39 resource protection wells associated with the LERF basins, three
40 downgradient and one upgradient. Well E-35-2, shown on this
41 topographic map, is the northern-most downgradient resource protection
42 well for the LERF. There are no barriers planned for drainage or
43 flood control at the ETF.
- 44
45

46 **2.2 DESCRIPTION OF UNIT TO BE EXPANDED**

47
48 The ETF will be designed to handle a maximum feed rate of 150 gallons
49 (568 liters) per minute and a minimum of 40 gallons (151 liters) per minute,
50 and will be designed to provide treatment of a wide range of constituents.
51

1 The ETF treatment train will consist of the following equipment:

- 2
3 • Surge tank with pH adjustment
4 • Rough filter
5 • Ultraviolet/oxidation system
6 • pH adjustment tank
7 • Hydrogen peroxide decomposer
8 • Fine filter
9 • Degasification system
10 • Reverse osmosis system
11 • Ion exchange polisher
12 • Effluent pH adjustment tank
13 • Verification tanks.
14

15 The incoming waste water will be delivered to the surge tank, flow
16 through the system, and end in one of three 670,000-gallon (2,536,000-liter)
17 verification tanks.
18

19 A single building will house the treatment processes and container
20 storage area. An underground piping system will link the treatment processes
21 to the onground verification tanks. The treated waste water will be held in
22 the verification tanks pending laboratory analysis to determine if the treated
23 waste water meets applicable permit conditions for disposal.
24

25 The verification tanks, container storage area, and process areas all
26 will be engineered in accordance with dangerous waste regulations, including
27 secondary containment. The impervious, specially-coated floor will provide
28 secondary containment for the process area. The container storage area will
29 be located inside the ETF to provide security and to protect the containers
30 from the elements. The container storage area will have a coated floor and
31 will have an impervious berm to contain any spills or leaks. The verification
32 tanks will include a high-density polyethylene liner external to the tanks
33 with a secondary containment dike, and will be designed to allow removal of
34 liquids from precipitation, leaks, or spills.
35

36 Treated waste water from the ETF process will be discharged to the soil
37 column, subject to receipt of the appropriate permit(s) (e.g., Clean Air Act
38 Permit, State Waste Discharge Permit (WAC 173-216). Treated waste water not
39 meeting discharge standards will be retreated through the ETF until the waste
40 water can be discharged, or stored in the verification tanks while other
41 treatment or disposal options are determined. The ability to store dangerous
42 waste in tanks is necessary to preclude accumulation violations should the
43 waste water need to be stored longer than 90 days.
44

45 The ETF treatment will generate a secondary mixed waste. This waste will
46 be dried to a powder, accumulated in containers, and shipped to an appropriate
47 TSD unit. Several factors will affect the ability of the ETF to dispose of
48 mixed waste containers in a timely manner, i.e., in less than 90 days. The
49 time required for laboratory analyses of waste, owner/operator requirements
50 for waste disposal, and operating efficiencies all will contribute to the
51 possibility of greater-than-90-day container storage at the ETF. Therefore, a

1 WAC 173-303 greater-than-90-day-compliant container storage area will be
2 provided.

3
4 Waste storage at the ETF, both in tanks and containers, is intended
5 solely for waste generated at the ETF that cannot be disposed of within
6 90 days. There is no intent or plan to store waste at the ETF from other
7 Hanford Facility units or offsite facilities.

10 2.3 COMPLIANCE WITH STATE ENVIRONMENTAL POLICY ACT

11
12 The *State Environmental Policy Act of 1971* Environmental Checklist was
13 submitted to Ecology on February 4, 1993, as enclosure 1 of documentation
14 concerning a new source of toxic air pollutants (DOE-RL 1993).

17 2.4 COMPLIANCE WITH SITING STANDARDS

18
19 The demonstration of compliance with the siting criteria as required
20 under WAC 173-303-282(6) and (7) are addressed in the following sections.

23 2.4.1 Criteria for Elements of the Natural Environment

24
25 The following section addresses measures that will be in place at the ETF
26 to provide protection of the natural environment. Each element of the
27 criteria identified in WAC 173-303-282(6) is addressed.

28
29 2.4.1.1 Earth. This section addresses the potential for the release of mixed
30 waste into the environment because of structural damage resulting from
31 conditions of the earth at the ETF.

32
33 2.4.1.1.1 Seismic Consideration. The ETF will be located in Zone 2B as
34 identified in the *Uniform Building Code* (ICBO 1991). The ETF was designed in
35 accordance with the regulations of Section 2312 of the *Uniform Building Code*
36 (ICBO 1991) for earthquake Zone 2. The design of the ETF for seismic
37 considerations is in accordance with the *Hanford Plant Standards*, Standard
38 Design Criteria - 4.1 (DOE-RL 1988a). This Plant Standard provides seismic
39 load criteria specific for the Hanford Site and is more restrictive than the
40 *Uniform Building Code*.

41
42 No active faults, or evidence of a fault that has had displacement during
43 Holocene times, have been found at the Hanford Site (DOE 1988; WHC 1991;
44 WHC 1992). The youngest faults recognized at the Hanford Site occur on Gable
45 Mountain, over 500 feet (152 meters) north of the 200 East Area. These faults
46 are of Quaternary age and are considered 'capable' by the Nuclear Regulatory
47 Commission (NRC 1982).

48
49 2.4.1.1.2 Subsidence. The ETF will be located in the 200 East Area of
50 the Hanford Facility. This area of the Hanford Facility is not considered an
51 area subject to subsidence (PNL 1991a).

2.4.1.1.3 Slope or Soil Instability. The ETF will not be located in an area of slope or soil instability, or will it be located in an area affected by unstable slope of soil conditions (PNL 1991a).

2.4.1.2 Air. The ETF will not be an incineration unit. Discussion of measures taken to reduce air emissions resulting from incineration is not applicable.

2.4.1.3 Water. This section addresses the potential for contaminating water of the state in the event of a release of mixed waste.

2.4.1.3.1 Surface Water. The following addresses considerations for the protection of surface water.

2.4.1.3.1.1 Flood, Seiche, and Tsunami Protection. Three sources of potential flooding of the area were considered: (1) the Columbia River, (2) the Yakima River, and (3) storm-induced run-off in ephemeral streams draining the Hanford Facility. No perennial streams occur in the central part of the Hanford Facility.

The Federal Emergency Management Agency has not prepared floodplain maps for the Columbia River through the Hanford Facility. The flow of the Columbia River is largely controlled by several upstream dams that are designed to reduce major flood flows. Based on a U.S. Army Corps of Engineers study of the flooding potential of the Columbia River that considered historical data and water storage capacity of the dams on the Columbia River (COE 1969), the U.S. Department of Energy (ERDA 1976) has estimated the probable maximum flood (Figure 3). The estimated probable maximum flood would have a larger floodplain than either the 100- or 500-year floods. The location of the ETF will be well above the elevation of the Columbia River probable maximum flood and, therefore, is not within the 100- or 500-year floodplain.

The 100-year floodplain for the Yakima River, as determined by the Federal Emergency Management Agency (FEMA 1980), is shown in Figure 4. The ETF will not be within the floodplain.

The only other potential source of flooding of the ETF is run-off from a large precipitation event in the Cold Creek watershed. This event could result in flooding of the ephemeral Cold Creek. Skaggs and Walters (1981) have given an estimate of the probable maximum flood using conservative values of precipitation, infiltration, surface roughness, and topographic features. The resulting flood area (Figure 5) would not affect the ETF. The 100-year flood would be less than the probable maximum flood.

2.4.1.3.1.2 Perennial Surface Water Bodies. There are no perennial surface water bodies within one-quarter mile (0.4 kilometer) of the ETF.

2.4.1.3.1.3 Surface Water Supply. The ETF will not be located within an area designated as a watershed or is it located within one-quarter mile (0.4 kilometer) of a surface water intake for domestic water.

1 **2.4.1.3.2 Groundwater.** The following addresses consideration for the
2 protection of groundwater. The ETF will be an "existing facility" as defined
3 by WAC 173-303-282(3); therefore, compliance with the contingent groundwater
4 protection program is not required.

5
6 **2.4.1.3.2.1 Depth to Groundwater.** The ETF will be located in the
7 200 East Area of the Hanford Facility. The depth to groundwater in the
8 200 East Area is over 260 feet (79 meters).

9
10 **2.4.1.3.2.2 Sole Source Aquifer.** The ETF will not be located over an
11 area designated as a 'sole source aquifer' under section 1424(e) of the *Safe*
12 *Drinking Water Act of 1974.*

13
14 **2.4.1.3.2.3 Groundwater Management Areas and Special Protection Areas.**
15 The proposed expansion involves the addition of storage capacity in the
16 proposed ETF. The future system will meet secondary containment requirements
17 per WAC 173-303-640 and 173-303-630. The storage of waste in tanks and
18 containers is not expected to result in an increased potential for release of
19 mixed waste to groundwater.

20
21 **2.4.1.3.2.4 Groundwater Intakes.** The ETF will not be located within
22 one-quarter mile (0.4 kilometer) of a groundwater intake for domestic water.

23
24 **2.4.1.4 Plants and Animals.** The proposed expansion will not result in an
25 increased potential for mixed waste to contaminate plant and animal habitat in
26 the event of a release of mixed waste.

27
28 **2.4.1.5 Precipitation.** The ETF will not be located in an area having a mean
29 annual precipitation level of greater than 100 inches (254 centimeters)
30 (DOE 1987).

31 32 33 **2.4.2 Criteria for Elements of the Built Environment**

34
35 The following sections address the locational factors affecting
36 protection of the built environment. Each element of the criteria for land-
37 based facilities or units identified in WAC 173-303-282(7) is addressed.

38
39 **2.4.2.1 Adjacent Land Use.** This section addresses the setback criteria for
40 adjacent land use.

41
42 **Land-Based Facilities.** The ETF will be located approximately 9 miles
43 (14 kilometers) from the closest Hanford Facility property line.

44
45 **2.4.2.2 Special Land Uses.** This section addresses setback criteria for
46 special land uses.

47
48 **2.4.2.2.1 Wild and Scenic Rivers.** The ETF will be located approximately
49 6 miles (10 kilometers) from the Hanford Reach of the Columbia River, which
50 has been proposed as a Wild and Scenic River. The ETF is clearly not within
51 the viewshed of users of the Columbia River.

2.4.2.2.2 Parks, Recreation Areas, National Monuments. The ETF will be situated approximately 9 miles (14 kilometers) from the closest Hanford Facility boundary line and therefore will be a minimum of 9 miles (14 kilometers) from the nearest state or federally designated park, recreation area, or national monument.

2.4.2.2.3 Wilderness Areas. The ETF will be located approximately 9 miles (14 kilometers) from the boundary of the Hanford Facility, and is clear of any Wilderness Areas as defined by the *Wilderness Act of 1964*.

2.4.2.2.4 Farmland. The ETF will be a minimum of 9 miles (14 kilometers) from any commercial or private prime farmland.

2.4.2.3 Residences and Public Gathering Places

This section discusses factors affecting residences and public gathering places.

2.4.2.3.1 Incineration. Incineration will not be a process used at the ETF. Therefore, this criterion is not applicable.

2.4.2.3.2 Land Use Compatibility. The Hanford Facility conforms with local land use zoning designation requirements.

2.4.2.3.3 Archeological Sites and Historic Sites. The ETF has been investigated for cultural resource concerns by the Battelle Pacific Northwest Laboratories' Hanford Cultural Resources Laboratory (HCRL) (PNL 1991b). The HCRL has declared the building and tank site to be clear of cultural properties, but identified two areas of concern with the proposed pipe route to the 200 West Area point of discharge. One concern is the historic White Bluffs Road and the other concern is an anomalous rock cairn designated HT-89-030. The HCRL has cleared this project for construction providing specific measures are followed during construction to mitigate or avoid damage to either of these areas.

The nearest historic site designated by the federal government is B Reactor, which is located approximately 8 miles (13 kilometers) northwest of the ETF. The B Reactor is considered a National Register Property.

3.0 TEN-YEAR NONCOMPLIANCE HISTORY

Appendix B contains copies of the Notice of Noncompliance (Compliance Inspection) related to dangerous waste management since the previous NOI was filed in December 1992 (NOI for T Plant). These compliance inspection letters identify WAC 173-303 violations at the tank 241-101-T, the 200 East Area Slab Yard, the 305-B Storage Facility, rinsing and storing of 101-SY air lances, 100-K East Fuel Storage Basin, Hanford Facility National Emission Standards for Hazardous Air Pollutants, and failure to designate solid waste containers. Efforts are underway to provide responses to the inspection letters regarding

1 the 200 East Area Tank Farms, 101-SY air lances, 100-K East Fuel Storage
2 Basin, and failure to designate solid waste containers. Appendix B also
3 contains a Notice of Penalty incurred.

4.0 JUSTIFICATION OF NEED

10 In May 1989, the U.S. Department of Energy along with Ecology and the
11 U.S. Environmental Protection Agency (EPA) formally entered into an agreement
12 known as the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party
13 Agreement) (Ecology et al. 1992) for the purpose of the Hanford Facility
14 gaining compliance with federal, state, and local laws concerning the
15 management of waste. The operation of the ETF will support Tri-Party
16 Agreement milestone M-20-50 by providing a means to treat Phase I* streams
17 from the 242-A Evaporator and other sources.

19 The ability to store dangerous waste in tanks and containers longer than
20 90 days is necessary because of likely delays in transferring ETF mixed waste
21 to a TSD unit. To ensure compliance with federal and state requirements for
22 accumulation of dangerous waste, the ETF must be permitted to store dangerous
23 waste longer than 90 days.

5.0 IMPACT ON OVERALL CAPACITY AT THE HANFORD FACILITY AND THE STATE OF WASHINGTON

31 The current capacity for the treating, storing, and/or disposing of mixed
32 waste is limited within Washington State and the Hanford Facility. The ETF
33 will have the means to treat and store mixed waste and to comply with
34 WAC 173-303 regulations.

35 *Several studies of liquid effluents on the Hanford Facility resulted in
36 a series of reports (the Hanford Site stream-specific reports, the liquid
37 effluent study final project report and the liquid effluent study) that
38 identify and categorize liquid effluent waste streams as Phase I, Phase II,
39 and Miscellaneous streams. The timeline for cessation of these untreated
40 discharges is contained in the Tri-Party Agreement.

6.0 REFERENCES

6.1 DOCUMENTS

- COE, 1969, *Columbia River Basin: Lower Columbia River Standard Project Flood and Probable Maximum Flood*, September 1969, Memorandum Report, U.S. Army Corps of Engineers, U.S. Army Engineer Division, North Pacific, Portland, Oregon.
- DOE, 1987, *Final Environmental Impact Statement: Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes*, Vol. 1-5, DOE/EIS-0113, U.S. Department of Energy, Washington, D.C.
- DOE, 1988, *Site Characterization Plan, Consultation Draft*, DOE/RW-0164, Vol. 1, U.S. Department of Energy, Washington, D.C.
- DOE-RL, 1988a, "Design Load for Structures," HPS-SDC-4.1, Revision 11, *Hanford Plant Standards*, U.S. Department of Energy-Richland Operations Office, Richland Washington.
- DOE-RL, 1988b, *Hanford Facility Dangerous Waste Part A Permit Application*, Vols. 1 through 3, DOE/RL 88-21, U.S. Department of Energy-Richland Operations Office, Richland, Washington.
- DOE-RL, 1993, correspondence from J. D. Bauer, U.S. Department of Energy, Richland Field Office, to David B. Jansen, Washington State Department of Ecology, concerning a new source of toxic air pollutants (correspondence number RL93-RPB-088, dated February 4, 1993).
- Ecology, EPA, and DOE, 1992, *Hanford Federal Facility Agreement and Consent Order*, Vols. 1 and 2, Washington State Department of Ecology, U.S. Environmental Protection Agency, U.S. Department of Energy, Olympia, Washington.
- ERDA, 1976, *Evaluation of Impact of Potential Flooding Criteria on the Hanford Project*, RLO-76-4, U.S. Energy Research and Development Administration-Richland Operations Office, Richland, Washington.
- FEMA, 1980, *Flood Insurance Study: Benton County Washington*, Federal Emergency Management Agency, Federal Insurance Administration, Washington, D.C.
- ICBO, 1991, "Earthquake Regulations," *Uniform Building Code*, UBC Section 2312, International Conference of Building Officials, Whittier, California.
- NRC, 1982, *Safety Evaluation Report (Related to the Operation of WPPSS Nuclear Project) No. 2*, NUREG-0892 Supplement No. 1, U.S. Nuclear Regulatory Commission, Washington, D.C.

- 1 PNL, 1991a, *Hanford Site National Environmental Policy Act (NEPA)*
2 *Characterization*, PNL-6415, Revision 4, Pacific Northwest Laboratory,
3 Richland, Washington.
4
5 PNL, 1991b, *Cultural Resources Review of the 242-A Evaporator/PUREX Plant*
6 *Condensate Treatment Facility*, HCRC #91-600-014 dated July 15, 1990,
7 Pacific Northwest Laboratory, Richland Washington.
8
9 Skaggs, R.L. and W.H. Walters, 1981, *Flood Risk Analysis of Cold Creek Near*
10 *the Hanford Site*, PNL-4219, Pacific Northwest Laboratory, Richland,
11 Washington.
12
13 WHC, 1991, *Geology and Hydrology of the Hanford Site: A Standardized Text for*
14 *Use in Westinghouse Hanford Company Documents and Reports*,
15 WHC-SD-ER-TI-003, Westinghouse Hanford Company.
16
17 WHC, 1992, *Design Construction Specification, Project C-018H,*
18 *242A Evaporator/PUREX Plant Process Condensate Treatment Facility,*
19 *V-C01 E8HC1-001*, Westinghouse Hanford Company, Richland, Washington.
20

21 22 6.2 FEDERAL AND STATE ACTS

- 23
24 *Resource Conservation and Recovery Act of 1976*, as amended, 42 USC 6901
25 et seq.
26
27 *Safe Drinking Water Act of 1974*, as amended, 42 USC 300f et seq.
28
29 *Shoreline Management Act of 1971*, Revised Code of Washington,
30 Chapter 90.58.010 et seq., Olympia, Washington.
31
32 *State Environmental Policy Act of 1971*, RCW 43.21c.
33
34 *Wilderness Act of 1964*, as amended, 16 USC 1131-1136 et seq.
35

36 37 6.3 REVISED CODE OF WASHINGTON AND WASHINGTON ADMINISTRATIVE CODE

- 38
39 WAC 173-303, *Dangerous Waste Regulations*, Washington State Department of
40 Ecology, Olympia, Washington.
41

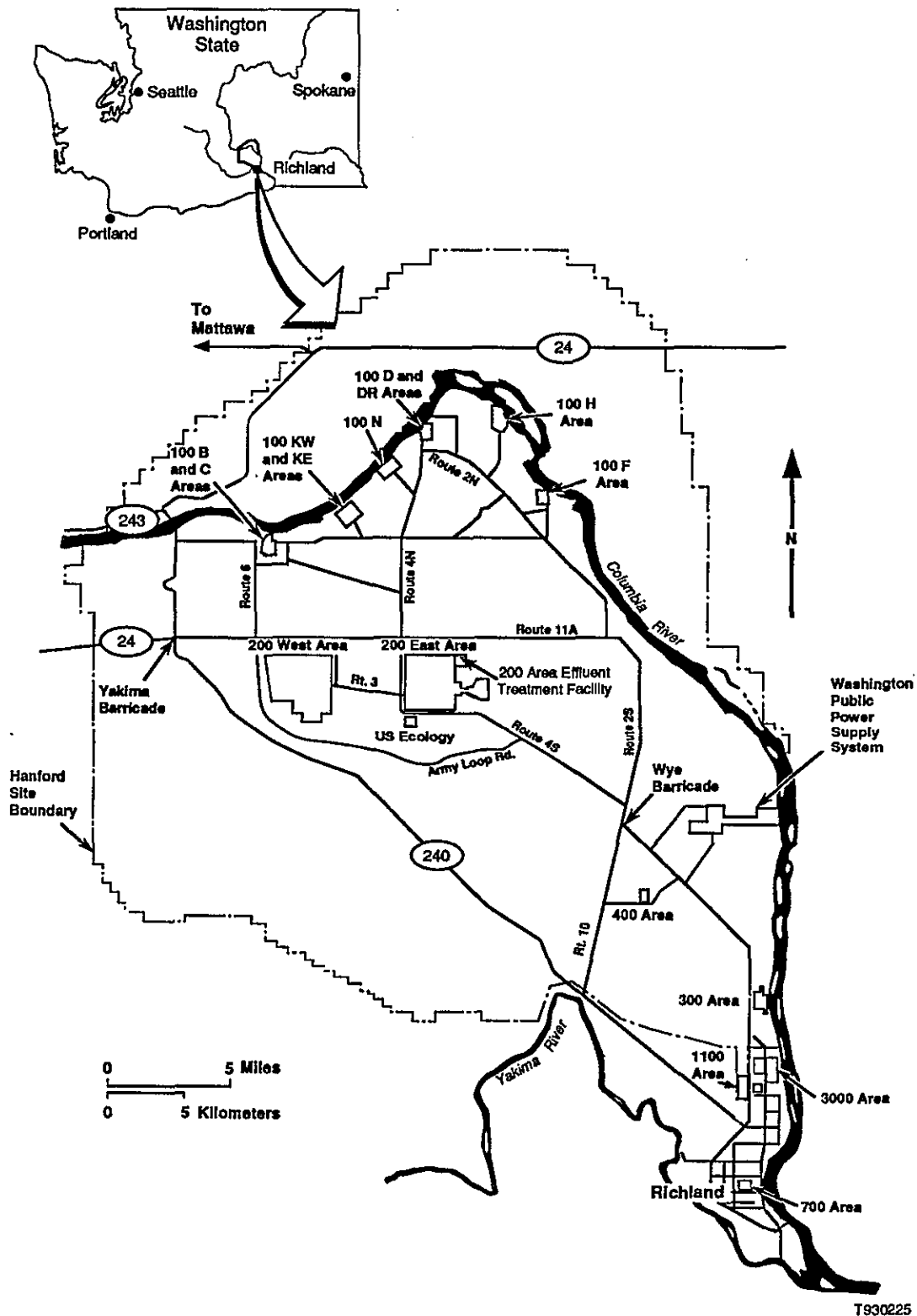


Figure 1. Hanford Site.

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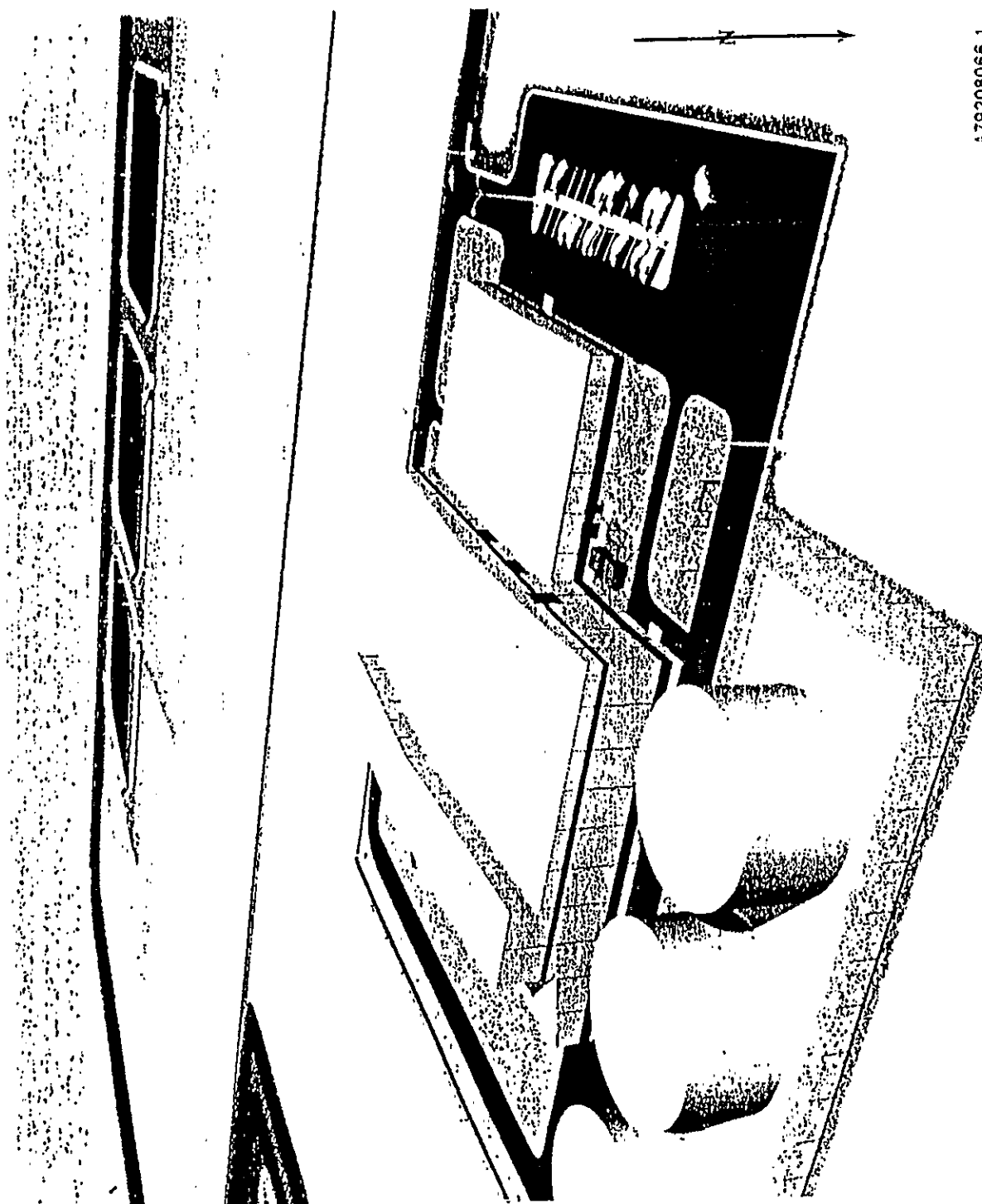


Figure 2. 200 Area Effluent Treatment Facility.

9312937029

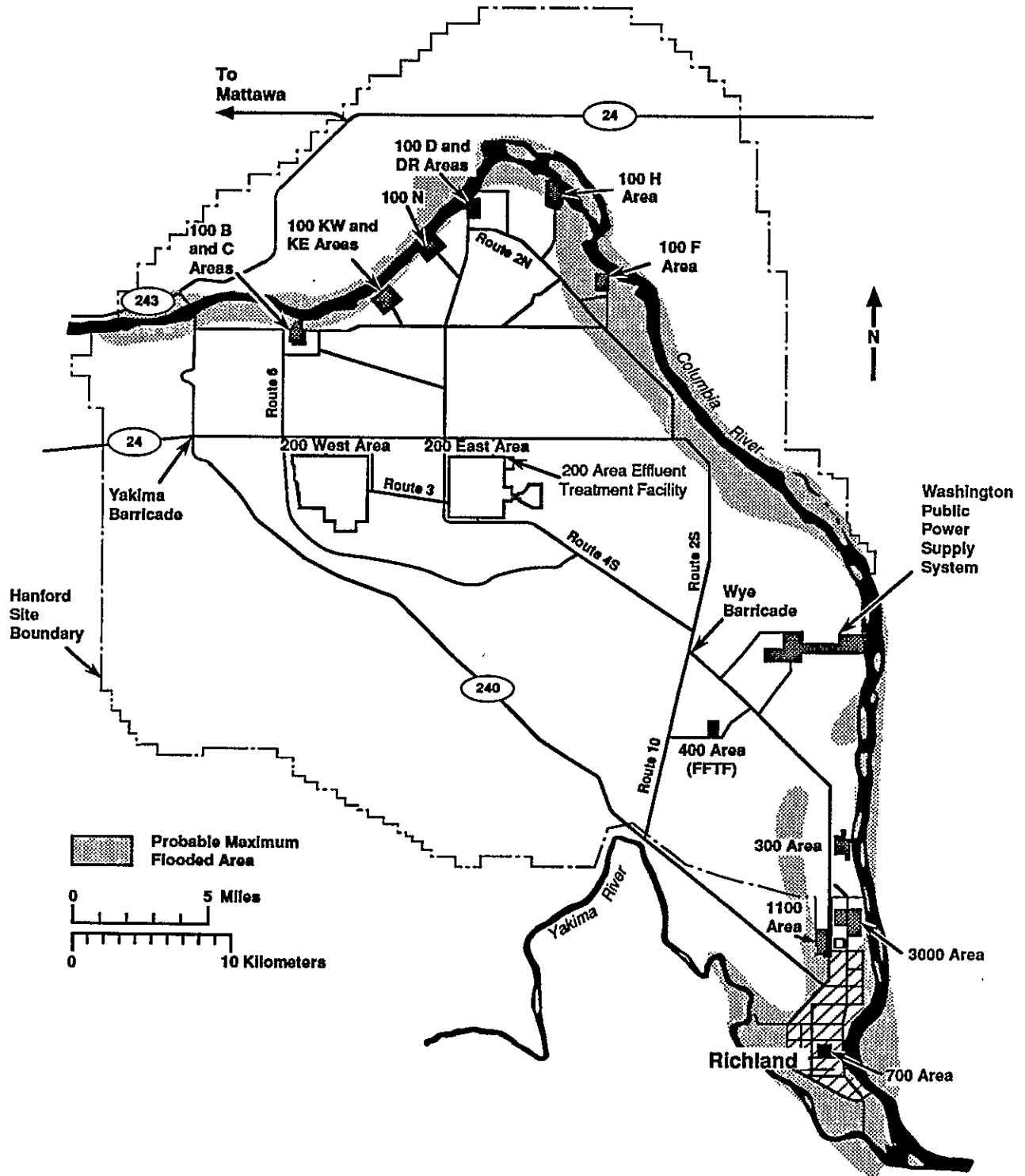


Figure 3. Columbia River Floodplain.

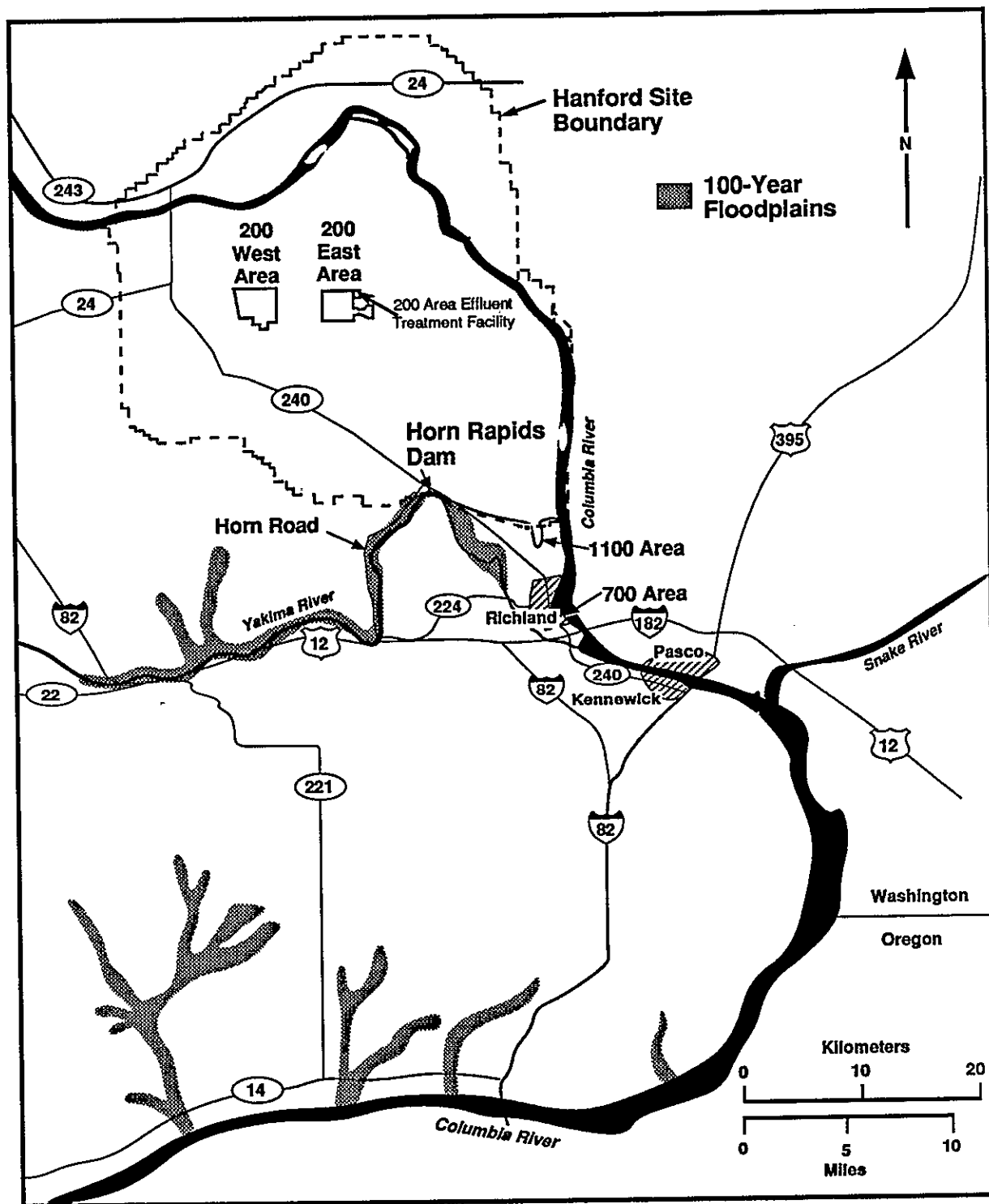


Figure 4. Yakima River Floodplain.

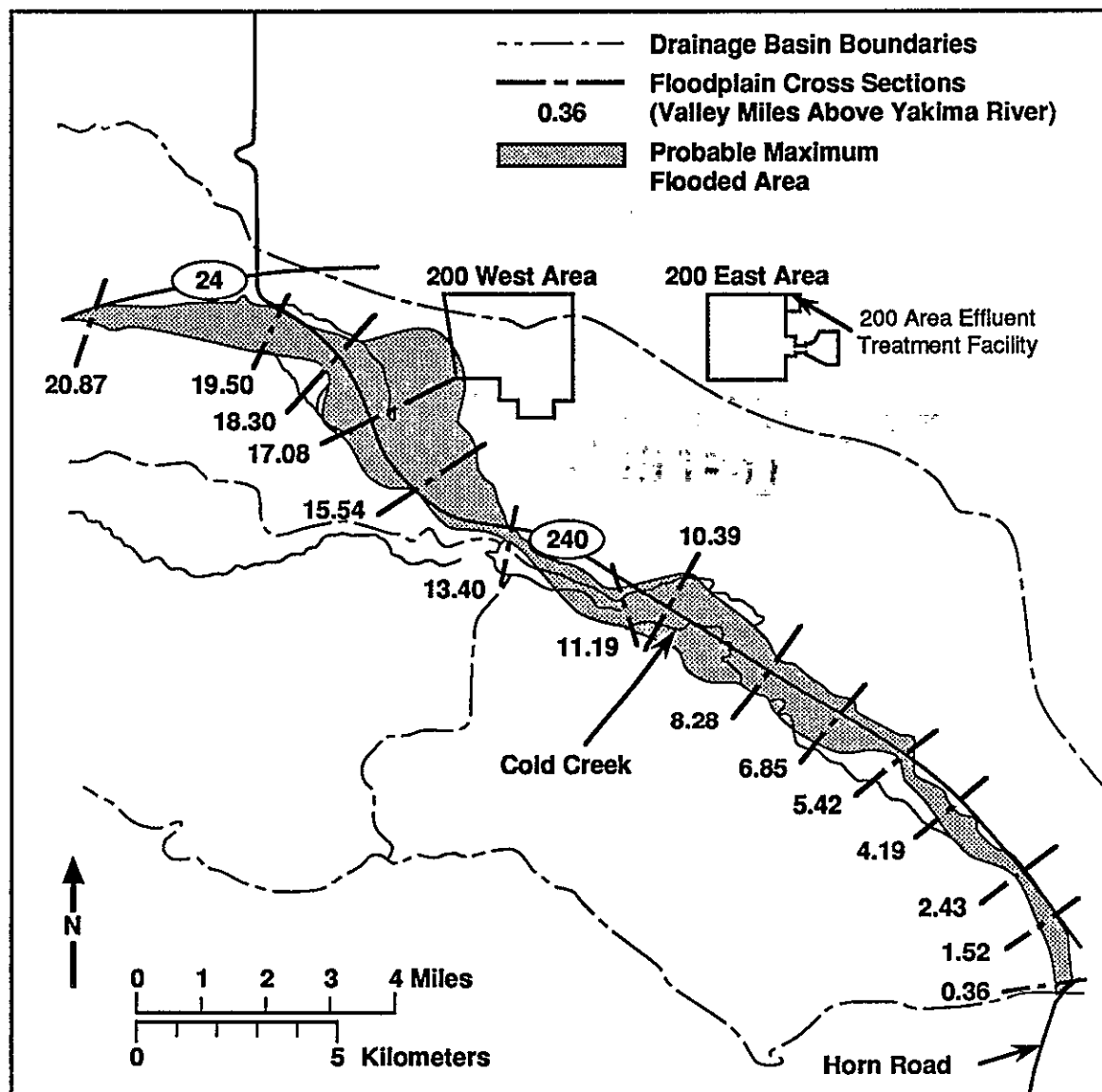


Figure 5. Cold Creek Watershed Floodplain.

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APPENDIX A

HANFORD SITE MAPS

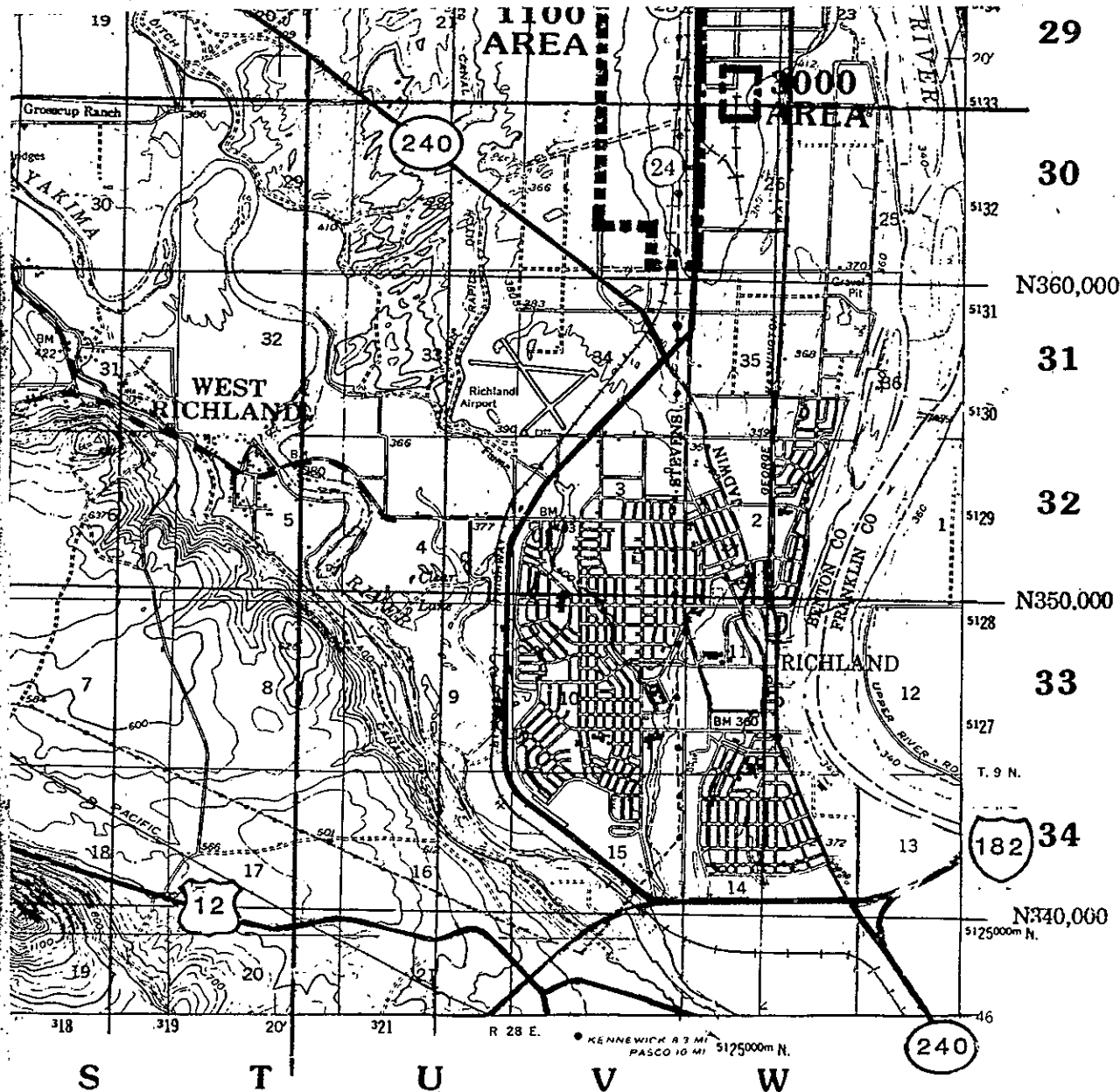
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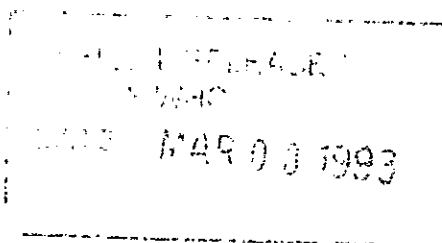
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			Richland Operations Office		
APPD FOR QUALITY ASSURANCE			 Westinghouse Hanford Company		
APPD <i>[Signature]</i> <i>B.L. Co. Eng</i>		7/87			
APPD <i>[Signature]</i>		12/87	<h1>OVERALL HANFORD FACILITIES</h1>		
APPD <i>[Signature]</i>					
RESPONSIBLE ENGINEER					
R.L. MARTELL		3/87			
DRAFTING APPD			SCALE AS SHOWN 600 GEN INDEX NO. 0100		
CHECKED <i>[Signature]</i>		7/87			
DRAWN K.D. JUNT		3/87	DRAWING NO. H-6-958		
CLASSIFICATION					
NONE		BY NOT REQ'D	SHEET NO. 1 SHEETS 1		

30 METERS



JW VOSAHL0		DATE 12-28-92		U.S. DEPARTMENT OF ENERGY Richland Operations Office Westinghouse Hanford Company			
[Signature]		[Signature]					
VD R. N. Kyle		3-2-93		TOPO MAP 200 AREA EFFLUENT TREATMENT FACILITY			
R J. J. [Signature]		3/2/93					
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APPENDIX B

COPIES OF NOTICE OF NONCOMPLIANCE AND THE U.S. DEPARTMENT OF ENERGY,
RICHLAND FIELD OFFICE RESPONSES

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APPENDIX B-1

NOTICE OF NONCOMPLIANCE TANK 241-101-T

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

November 12, 1992

Mr. John D. Wagoner
Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Dear Mr. Wagoner:

This letter is sent to notify you that the Department of Ecology (Ecology) has become aware of a number of significant violations of the State's Dangerous Waste Regulations, Chapter 173-303 Washington Administrative Code (WAC), which have occurred and continue to occur at Single-Shell Tank 241-101-T (T-101), located in 200 West Area, T Tank Farm, on the Hanford Reservation in South Central Washington State. Enclosed is a proposed amendment to the Hanford Tri-Party Agreement (TPA), which addresses these violations. The violations occurring at Tank T-101 present extremely serious threats to human health and the environment. Therefore, we will allow a maximum of thirty (30) days to reach agreement on this proposed amendment. If no agreement can be reached, Ecology will issue appropriate enforcement action(s) (under Chapter 70.105 RCW) to U.S. Department of Energy (USDOE) and its contractor, Westinghouse Hanford Co.

Tank T-101 is a subsurface single-shell tank, with associated equipment, including leak detection devices. Tank T-101 has a capacity of 530,000 gallons and currently contains approximately 133,000 gallons of mixed radioactive, dangerous, and extremely hazardous waste as designated under Chapter 173-303 WAC. Tank T-101 is not equipped with a secondary containment system.

Ecology inspections have documented a number of serious deficiencies at Tank T-101. Most alarming is evidence that between April of 1992 and September of 1992 Tank T-101 leaked approximately 7,425 gallons of extremely hazardous and radioactive waste (and may well be continuing to leak as of this date). This liquid is not contained and has been released to the environment.

Ecology inspections have also documented that Tank T-101's leak detection systems and devices are thoroughly inadequate. These systems and devices are often out of service. When these systems and devices are operating, they are far from adequate.

Mr. John D. Wagoner
 Page 2
 November 12, 1992

Ecology was not notified of leakage from Tank T-101 until October 7, 1992, nearly six months after monitoring data indicated the tank had begun leaking. Delays of this nature serve to underscore the lack of Hanford site systems capable of detecting, confirming, and adequately responding to tank leaks. In addition, delayed reporting violates state regulations (e.g., WAC 173-303-145).

Ecology's inspections, file reviews, and discussions with tank farm operations and management personnel have documented the following violations of Washington's Dangerous Waste Regulations, Chapter 173-303 WAC, at Tank T-101:

1. Failure to provide secondary containment: WAC 173-303-400 (3)(a) and 40 C.F.R. Part 265(j).
2. Failure to provide an adequate leak detection system: WAC 173-303-400(3)(a) and 40 C.F.R. Part 265(j).
3. Failure to adequately inspect: WAC 173-303-320(3) and -400(3)(a) and 40 C.F.R. Part 265(j).
4. Failure to adequately respond to leaks or spills and dispositions of leaking or unfit-for-use tank systems: WAC 173-303-145(3) and -400(3)(a) and 40 C.F.R. Part 265(j).
5. Failure to adequately notify and report: WAC 173-303-145(2) and -400(3)(a) and 40 C.F.R. Part 265(j).
6. Failure to maintain and implement an adequate personnel training plan: WAC 173-303-330.
7. Failure to maintain and implement an adequate contingency plan: WAC 173-303-350.

The preceding constitute the most pressing and obvious violations occurring at Tank T-101. The enclosed TPA Change Control Form sets forth a number of tasks and associated deadlines for completion of these tasks. Ecology has determined that these tasks are necessary to bring Tank T-101 into compliance with applicable standards and to address the violations described above. We believe these tasks and the time frames for completion of these tasks are reasonable. As stated previously, we will allow thirty days for USDOE to sign this Change Control Form and implement the required tasks.

If the enclosed TPA Change Control Form is not signed within thirty days, Ecology will issue appropriate enforcement action(s) against USDOE and Westinghouse Hanford Co. requiring implementation and completion of these tasks.

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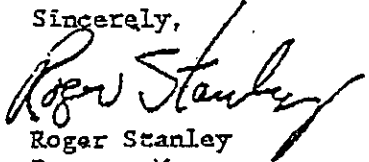
Mr. John D. Wagoner

Page 3

November 12, 1992

It is our hope that this situation can be addressed promptly and cooperatively by the parties to the TPA via the enclosed Change Control Form. Clearly, this would be the preferable way to address a very real and present threat to human health and the environment. We are ready and willing to discuss this situation with you and/or your staff at your convenience. Please contact myself at (206) 438-7020 or David Nylander of Ecology's Kennewick field office at (509) 546-2992, if you or your staff have any questions regarding this matter.

Sincerely,



Roger Stanley
Program Manager
Nuclear and Mixed Waste Management

RS:lm

Enclosures

cc: Tom Anderson, WHC
John Anttonen, USDOE
Becky Austin, WHC
James Bauer, USDOE
Paul Day, USEPA
Dana Rasmussen, USEPA
Steve Wisness, USDOE
Fred Olson, Ecology
Narda Pierce, Ecology
David Jansen, Ecology
David Nylander, Ecology

931390343

Change Number	FEDERAL FACILITY AGREEMENT AND CONSENT ORDER CHANGE CONTROL FORM Do not use blue ink. Type, or print using black ink.	Date
M-23-92-XX		

Originator

David B. Jansen

Phone:

206-438-7021

Class of Change

☐ I - Signatories (Section 13.0)☒ II - Project Manager☐ III - Unit Manager

Change Title Establish additional Interim milestones for single-shell tank 241-101-T to achieve compliance with interim status requirements.

Description/Justification of Change

These interim milestones will establish actions necessary for single-shell tank 241-101-T and associated equipment to achieve compliance with interim status requirements.

Interim Milestone Descriptions:

M-23-21 USDOE shall, no later than December 18, 1992, submit a report to Ecology detailing options, the feasibility of each option, the amount of time necessary to implement each option assuming an accelerated schedule; and comparative overall implementation costs associated with securing secondary containment at its equivalent at single-shell tank T-101.

(See attachments for additional descriptions)

Impact of Change

This change will add nine (9) new interim milestones. Transfer line testing and tank pumping at Tank 241-101-T may expedite certain aspects of Milestone M-07-01, M-07-02, and M-07-03. This change may also potentially affect waste characterization schedules under Milestone M-10.

Affected Documents

Sanford Federal Facility Agreement and Consent Order Action Plan, Appendix D (Table D-1 and Figure D-1 work schedules).

Approvals

Approved

Disapproved

DOE

Date

EPA

Date

Ecology

Date

Change Control Form

M-23-92-XX

November 12, 1992

M-23-22 USDOE shall, no later than December 18, 1992, provide an adequate in-tank liquid level leak detection system at tank T-101 and ensure that the system is monitored/inspected daily.

M-23-23 USDOE shall, no later than December 18, 1992, inspect all other tank T-101 monitoring systems (e.g., dry well and temperature), and shall submit a written report to Ecology detailing the status and capability of these and other T-101 leak detection systems to immediately detect a release to the environment.

Should the aforementioned inspections and report document system inadequacy (or inadequacies), system upgrades shall be completed no later than February 12, 1993 or other timeframe as approved by Ecology.

M-23-24 USDOE shall, no later than December 18, 1992, take preparatory actions necessary for the removal of liquid wastes from tank T-101. Actions taken by USDOE within this period shall include, but are not limited to, the following:

M-23-24a USDOE shall complete evaluation of tank T-101 wastes sufficient to assess compatibility and criticality concerns in order to determine the most feasible receiver tank. Tank waste evaluation data shall be submitted to Ecology and EPA immediately on completion of analysis.

M-23-24b USDOE shall plan for and initiate physical testing of underground transfer lines needed to begin pumping T-101 tank liquids to a compatible tank.

M-23-24c Concurrent with M-23-24b above, USDOE shall initiate engineering and procurement processes needed for acquisition of double contained piping systems meeting the requirements of Chapter 173-303 WAC (to be implemented in the event that the existing tank transfer lines do not pass required testing).

M-23-25 Pursuant to actions under M-23-24b and/or M-23-24c, USDOE shall complete necessary transfer line system acquisition and installation, and shall initiate full scale removal of T101 liquids no later than February 13, 1993.

M-23-26 USDOE shall, no later than December 18, 1992, provide Ecology with copies of all data/correspondence pertaining to tank T-101 including all data/correspondence related to past and present releases or spills from tank T-101, and shall submit weekly progress reports throughout the duration of work under this change request which document all work performed, detail USDOE's

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Change Control Form
M-23-92-XX
November 12, 1992

compliance with these interim milestones, explains any anticipated noncompliance and all actions being taken by USDOE to ensure schedule recovery. Such data, memoranda, reports and other correspondence shall include, but not be limited to the following subject matters:

- Environmental Degradation
- Leak Detection Systems
- Waste Characterization
- Tank Compatibility
- Transfer Lines
- Engineering Studies
- Maintenance of Monitoring Equipment

- M-23-27 USDOE shall, no later than January 15, 1993, devise and implement an operator and tank farm management training program to ensure adequate and appropriate training in areas including monitoring, reporting, and response actions in the event of monitoring and potential incidents at tank T-101.
- M-23-28 USDOE shall, no later than December 18, 1992, provide to Ecology and EPA for comment documentation of actions taken in revising its operator and tank farm management training program. Such program shall include, but not be limited to, the following:
- M-23-28a Training which ensures the timely identification and confirmation of "tank leaks". "Tank leak" shall be defined as any release to the environment such that human health or the environment is threatened, regardless of quantity. (Chapter 173-303-145(1) WAC).
- M-23-28b Training which ensures adequate and timely USDOE and USDOE contractor tank farm management response, and notification of Ecology staff as required by Chapter 173-303-145(2)(c)(i) WAC.
- M-23-28c The identification of operational requirements for personnel responsible for reading and maintaining tank monitoring and leak detection systems.
- M-23-29 USDOE shall, no later than December 18, 1992, provide management control and/or tracking procedures which ensure that issues identified on Discrepancy Reports are tracked and acted on as necessary in order to verify proper closure of identified discrepancies. Copies of the amended procedures and other relevant documentation shall be provided to Ecology and EPA no later than January 15, 1993.

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APPENDIX B-1A

RESPONSE TO NOTICE OF NONCOMPLIANCE TANK 241-101-T

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Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

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NOV 19 1992



93-TPA-027

Mr. Roger F. Stanley,
Program Manager
Nuclear and Mixed Waste Management
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Mr. Stanley,

HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER MILESTONE CHANGE REQUEST
M-23-92-XX

Reference: Letter, R. Stanley, Ecology, to J. D. Wagoner, RL, no subject,
dated November 12, 1992.

The U.S. Department of Energy, Richland Field Office (RL) is in receipt of your recent letter. In the referenced letter, you have submitted a draft change request to the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), milestone M-23-00. These changes serve to address areas that the State of Washington Department of Ecology (Ecology) perceives as violations to Federal and Washington State regulations, and to accommodate specific activities associated with the recent public announcement on an assumed leak from single-shell tank (SST) 241-T-101. RL shares Ecology's concerns with the gravity of the situation surrounding a leak from any underground storage tank and the potential for harm to the environment. We agree activities to mitigate environmental risks are necessary and are anxious to discuss the requests contained within your letter.

The Tri-Party Agreement established a framework for the environmental restoration of the Hanford Site, and created a series of procedures for implementing that cleanup activity. RL fully supports the Tri-Party Agreement as the framework for environmental cleanup and compliance activities. Although the Tri-Party Agreement specifies that RL has but twenty-one days to respond to the regulator determinations of permit or interim status violations, we graciously accept your extension to thirty days for this complex issue. RL hopes that through mutual understanding of the issues and working together we can reach an acceptable solution.

Mr. Stanley
93-TPA-027

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RL recognizes the priority of action desired by Ecology in the reference. Although actions had already been set in motion to address issues originating with the announced suspected leak from tank T-101, a re-prioritization of resources within RL will be needed to assess Ecology's proposed schedule. To provide the level of resources needed for this assessment requires attention be diverted from other on-going activities. One of these activities is the work in process towards negotiating the needed changes to the Tri-Party Agreement M-05-00 milestones regarding interim stabilization of SST. The same personnel involved in the M-05-00 change package are those that are responsible for planning the proposed actions contained within the reference. The impacts to the negotiation process on the interim stabilization milestones will need to be assessed.

In the interest of reaching a satisfactory plan and schedule for implementing necessary corrective actions between the three parties, RL desires to quickly meet with the Ecology and U.S. Environmental Protection Agency (EPA) representatives to discuss the proposed milestones contained in the reference and other issues which have a bearing. Due to prior commitments with your personnel, and the timing of the Thanksgiving Holidays, RL recommends a meeting on December 3, 1992, be held at Ecology's Kennewick, Washington, offices. If you concur with this, I will have my staff coordinate a specific time for the meeting with your staff and the EPA staff.

If you should have any questions regarding this, please contact myself at (509) 376-5441, or Mr. Steve Wisness of my staff at (509) 376-6798.

Sincerely,

James D. Bauer
James D. Bauer, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy

EAP:JKY

cc: D. B. Jansen, Ecology
D. C. Nylander, Ecology
G. C. Hofer, EPA
P. T. Day, EPA
B. A. Austin, WHC





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Department of Energy

Richland Field Office

P.O. Box 550

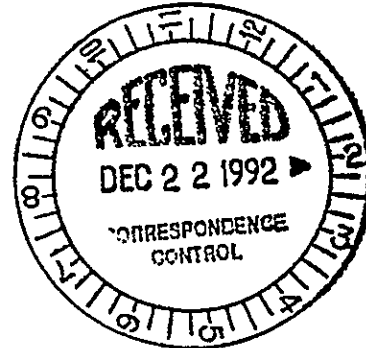
Richland, Washington 99352

DEC 08 1992

93-TPA-034

Mr. Paul T. Day
Hanford Project Manager
U.S. Environmental Protection Agency
Region 10
712 Swift Boulevard, Suite 5
Richland, Washington 99352

Mr. David B. Jansen, P.E.
Hanford Project Manager
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600



Dear Messrs. Day and Jansen:

HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT)
MILESTONE CHANGE REQUEST M-23-92-XX, RESPONSE

- Reference: (1) Letter, J. D. Bauer, RL, to R. Stanley, Ecology, same subject, 93-TPA-027, dated November 19, 1992
- (2) Letter, R. Stanley, Ecology, to J. Wagoner, RL, no subject, dated November 12, 1992

During discussions with the State of Washington Department of Ecology (Ecology) on December 3, 1992, requested by reference 1, the U.S. Department of Energy, Richland Field Office (RL) committed to provide a written response on proposed milestones. Reference 2, contained draft Change Request M-23-92-XX for modifying Tri-Party Agreement milestone M-23-00 by including several new milestones relating to assumed leaking single-shell tank (SST) 241-T-101. This correspondence serves to provide to U.S. Environmental Protection Agency (EPA) and Ecology the technical response to the proposed milestones. Future correspondence will serve to address the compliance issues contained within reference 2. That future correspondence will address the issues in accordance with the Tri-Party Agreement, Paragraph 28, as agreed at the December 3, 1992, meeting.

RL remains committed to the expeditious mitigation of the risks to the environment associated with assumed leaking tank T-101. As stated in reference 1, RL shares Ecology's concerns with the gravity of the situation surrounding a leak from any underground storage tank, and agree that activities to mitigate the environmental risks must proceed as expeditiously as possible. In fact, RL had proceeded to prepare to remove the pumpable liquid from this tank long before receipt of reference 2. RL continues in the preparation for this activity, conducting weekly meetings to coordinate this effort. RL welcomes the participation of EPA and Ecology representatives at

Messrs. Day and Jansen
93-TPA-034

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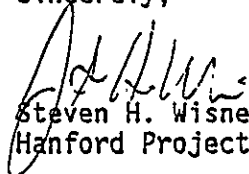
these meetings wherein they may share in the discussions and assist in reaching a rapid conclusion to this concern. Specifics on the meeting location and schedule are contained within attachment 1.

Many of the issues contained in reference 2 have been previously addressed in detail between RL and Ecology. The issue of secondary containment for these SSTs remains technically unfeasible. In the attached, RL describes activities in process which are pursuing subsurface barrier technologies. As more progress in this area develops, RL will share this information with EPA and Ecology. It is RL's plan that tank T-101 be pumped long before any substantial subsurface barrier could be emplaced as a mitigating factor.

RL recognizes the importance of the draft change request M-23-92-XX and the issues represented therein. Attachment 1 is the RL position on the draft change request, on a milestone by milestone discussion. The attachments provide discussion on actions in progress, identification of areas that are technically unfeasible or untimely, and reports completed activities. Supporting documents will be provided on December 9, 1992. Although some of the issues contained in the change request are not achievable as written, RL wishes to meet with EPA and Ecology representatives to negotiate a reasonable solution which will support an expedited response. Therefore, RL invites EPA and Ecology to attend a negotiating session with RL following the scheduled SST tank Unit Manager meeting scheduled for December 9, 1992. If this schedule is amenable to you, I will contact you with the specific time and location of these negotiations.

If you have any questions, please contact Mr. R. E. Gerton (RL Tank Farms Operations) at (509) 376-9106, or Mr. J. Yerxa of my staff at (509) 376-9628.

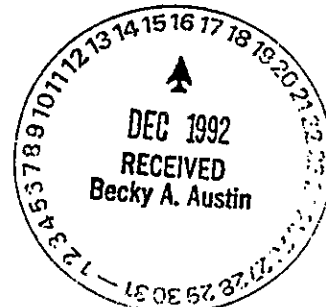
Sincerely,


Steven H. Wisness
Hanford Project Manager

EAP:JKY

Attachment

cc w/attach:
B. Austin, WHC
D. Nylander, Ecology
S. McKinney, Ecology
T. Michelena, Ecology
D. Sherwood, EPA
R. Stanley, Ecology
T. Tebb, Ecology



Attachment 1
Department of Energy Response
to
Ecology Change Request M-23-92-XX

Organizations USDOE - U.S. Department of Energy
 RL - U.S. Department of Energy, Richland Field Office
 Ecology - Washington State Department of Ecology
 EPA - U.S. Environmental Protection Agency
 WHC - Westinghouse Hanford Company

Proposed Milestone and RL Response

M-23-21 *USDOE shall, no later than December 18, 1992, submit a report to Ecology detailing options, the feasibility of each option, the amount of time necessary to implement each option assuming an accelerated schedule, and comparative overall implementation costs associated with securing secondary containment or its equivalent at single-shell tank T-101.*

The WAC 173-303 requires secondary containment for underground storage tanks. The specific wording of the code is lengthy, but in general requires that containers have a containment system that is capable of holding spills and leaks from the primary container. The capacity and integrity of any secondary containment system must be such that the secondary containment must prevent release of contaminated liquids to the environment.

The request in the referenced letter to provide "secondary containment" at T-101 (or any single-shell tank) provides a desirable, but unreasonable goal. RL has previously presented in discussions with Ecology and EPA the fundamental and technical obstacles to providing secondary containment for the existing single-shell tanks at Hanford. As early as 1987, while discussing the RCRA Part A Permit application, RL and WHC advised Mr. Stanley and others from Ecology that secondary containment cannot feasibly be provided for these tanks. RL's position on secondary containment has been reiterated in all subsequent discussions.

RL is making all haste to retrieve the pumpable liquids from this tank. This is in consonance with the HDW-EIS Record of Decision and Tri-Party Agreement milestone M-05-00 which direct the removal of pumpable liquids to reduce the risk of environmental damage resulting from tank leaks. The milestone was generated in recognition of the unfeasibility of secondary containment. By the time any subsurface barrier could be designed, all the analyses completed, mock-up tested, and installed, the environmental risk from further leakage will have been mitigated by the interim stabilization process. RL believes that the prioritization of limited resources would be better utilized by emphasizing liquids retrieval, with a lower priority established for expending resources to study, design, and possibly implement subsurface barriers for this specific tank.

RL realizes that the potential exists wherein studies required prior to removing the pumpable liquid will determine that removing the liquid would

create an unsafe condition. Therefore, RL will continue its on-going studies of subsurface barriers. Two such studies are underway. The first is in accordance with the requirement to perform an Engineering Evaluation of Alternatives in specific regards to pumping the liquids from assumed leaking tank T-101. By the end of January 1993 RL will have available an analysis which will cover the full range of options available to manage the assumed leaking tank. The time and schedule constraints (imposed so as to not impede progress for removing the pumpable liquid from T-101) limit the scope of the study to screening known possible alternatives using engineering judgement and experience.

The second study on sub-surface barriers is in accordance with plans surrounding the full retrieval of the single-shell tanks, in specific, C-106. This study is in its infancy. Discussions on this topic will commence with EPA and Ecology on December 9, 1992, as part of the single-shell tank Unit Manager Meeting.

M-23-22 *USDOE shall, no later than December 18, 1992, provide an adequate in-tank liquid level leak detection system at tank T-101 and ensure that the system is monitored/inspected daily.*

WHC has recently completed a major campaign to repair all waste tank level detection instrumentation in order to achieve full compliance with the requirements of WHC-SD-WM-TI-357, Rev. 1F (Waste Storage Tank Status and Leak Detection Criteria). The priority system used to allocate resources to operational and maintenance tasks was also revised recently so that priorities on par with OSR and environmental compliance activities are now placed on in-tank liquid level leak detection systems. Even with these new initiatives, it will remain difficult to maintain the existing level detection systems in service and to ensure that the requirements of WHC-SD-WM-TI-357 are satisfied in the future. This is the result of the inherent difficulties in maintaining systems that have exceeded their design life and that are no longer commercially available. WHC has an aggressive program to identify, test, and qualify new state of the art level detection devices to replace or supplement the existing FIC instruments.

In the interim, until new devices can be installed in Tank T-101, the existing FIC will be replaced or augmented with another refurbished FIC or a manual tape. Daily "zip cord" readings will be obtained on T-101 until such time as the tank is pumped, or the existing FIC can be replaced or augmented with a new device.

Accelerated efforts to evaluate new technologies for waste tank level measurement have been in progress since October 1992. Some of the technologies being considered include radar gauges, lasers, and ultrasonic devices. A radar gauge was installed in Double Shell Tank SY-101 in 1991. The in-situ testing of this device has produced mixed results. The inconsistent readings obtained during the latter part of Window G have caused RL to reconsider plans to install similar devices in other tanks in fiscal year 1993. Other level detection devices are also being considered for

installation in T-101. Work will proceed in parallel with pumping to plan the installation of a new device in T-101 as soon as the prerequisite vapor samples and safety documentation are completed. Given the time involved to complete this work and the accelerated schedule for emergency pumping, it is unlikely that such a device could be installed prior to stabilization. It would not be advisable to install a new device in tank T-101 after pumping. A letter report on level detection options will be provided to EPA and Ecology in March 1993.

M-23-23 *USDOE shall, no later than December 18, 1992, inspect all other tank T-101 monitoring systems (e.g., dry well and temperature), and shall submit a written report to Ecology detailing the status and capability of these and other T-101 leak detection systems to immediately detect a release to the environment.*

Should the aforementioned inspections and report document system inadequacy (or inadequacies), system upgrades shall be completed no later than February 12, 1993 or other time frame as approved by Ecology.

The other monitoring systems for 241-T-101 consist of dry wells, one thermocouple tree, and a dome elevation survey. There is no liquid observation well (LOW) installed in this tank. All of these monitoring systems are in compliance, as specified in applicable documents. There is no method available to immediately detect a release to the environment from Hanford's single-shell tanks using these instruments or systems.

The frequency of dry well readings with a gross gamma probe have been increased to weekly. Previous and current drywell scans are stable and give no indication of tank leaks. Readings with a spectral gamma probe were also taken recently. These readings confirmed the gross gamma reading and provide a baseline for future spectral gamma measurements.

One thermocouple tree is installed in T-101. Readings are taken on a weekly basis. There are eleven (11) thermocouples on the tree. Thermocouples #2, and 4 through 11 are currently operable and thermocouples #1 and 3 are inoperable. The highest reading from any thermocouple for the last two months is 72° F from thermocouple #2.

The status of the waste tank monitoring systems (including 241-T-101) is provided in the Tank Farm Surveillance and Waste Status Summary Reports (WHC-EP-0182-53) which are transmitted to EPA and Ecology on a monthly basis.

On July 22, 1992, Ecology and RL committed to several actions regarding the monitoring of Single-Shell Tanks C-105 and C-106. One of the commitments agreed to by RL and Ecology is outlined in proposed milestone M-05-13-T5. This milestone requested that by December 1992 RL provide to Ecology and EPA a plan for further improvements in gross gamma surveillance technology (probes). This plan, which would also be applicable to 241-T-101, will be provided to EPA and Ecology in December 1992.

M-23-24 *USDOE Shall, no later than December 18, 1992, take preparatory actions necessary for the removal of liquid waste from tank T-101. Actions taken by USDOE within this period shall include, but are not limited to, the following:*

M-23-24a *USDOE shall complete evaluation of tank T-101 wastes sufficient to assess compatibility and criticality concerns in order to determine the most feasible receiver tank. Tank waste evaluation data shall be submitted to Ecology and EPA immediately on completion of analysis.*

M-23-24b *USDOE shall plan for and initiate physical testing of underground transfer lines needed to begin pumping T-101 tank liquids to a compatible tank.*

M-23-24c *Concurrent with M-23-24b above, USDOE shall initiate engineering and procurement processes needed for acquisition of double contained piping systems meeting the requirements of Chapter 173-303 WAC (to be implemented in the event that the existing tank transfer lines do not pass required testing).*

Preparatory actions for emergency pumping of T-101 have been in progress since October 1, 1992, when the tank was reported as an assumed leaker. At present, all required transfer line hydrostatic testing has been satisfactorily completed. A criticality evaluation of the T-101 waste has also been prepared. The results of this evaluation were submitted to RL under Amendment I to the Justification for Continued Operation of the Hanford High Level Waste Tanks which was prepared in response to the unreviewed safety question on criticality. The report is undergoing final revision to incorporate review comments. A preliminary waste compatibility evaluation has been performed for the T-101 waste. Although there are no outstanding issues for transfer to holding tank 244-TX, an additional sample will be required after transfer to 244-TX and prior to final transfer from 244-TX to a suitable DST. Based on this, the actions specified in proposed milestones M-23-24a and M-23-24b have been completed. Since there are no known obstacles to pumping T-101 using the existing transfer lines, proposed milestone M-23-24c is considered unnecessary. The results of the transfer line hydrostatic test will be provided to EPA and Ecology by December 18, 1992. The criticality evaluation and results of the additional laboratory sample analysis data will be provided to EPA and Ecology in February 1993.

M-23-25 *Pursuant to actions under M-23-24b and/or M-23-24c, USDOE shall complete necessary transfer line system acquisition and installation, and shall initiate full scale removal of T-101 liquids no later than February 15, 1993.*

By December 18, 1992, RL will have submitted a request to pump T-101 and safety documentation for emergency pumping tank T-101 to USDOE-HQ. USDOE-HQ must authorize the beginning of pumping operations. RL will have completed

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all physical preparations prior to February 15, 1993, therefore allowing the immediate commencement of pumping this tank upon receipt of approval. As discussed above, design and installation of a new transfer line system is unnecessary.

M-23-26 *USDOE shall, no later than December 18, 1992, provide Ecology with copies of all data/correspondence pertaining to tank T-101 including all data/correspondence related to past and present releases or spills from tank T-101, and shall submit weekly progress reports throughout the duration of work under this change request which document all work performed, detail USDOE's compliance with these interim milestones, explains any anticipated noncompliance and all actions being taken by USDOE to ensure schedule recovery. Such data, memoranda, reports and other correspondence shall include, but not be limited to the following subject matters:*

- Environmental Degradation*
- Leak Detection Systems*
- Waste Characterization*
- Tank Compatibility*
- Transfer Lines*
- Engineering Studies*
- Maintenance of Monitoring Equipment*

In November, 1992, RL and WHC initiated weekly planning and schedule status meetings for T-101 corrective actions. The minutes of these meetings document work progress in all matters identified in this proposed milestone. Effective the week of December 7, 1992, copies of these meeting minutes will be provided to EPA and Ecology on a weekly basis. A brief summary of the status of critical path activities for emergency pumping will be included in these transmittals to EPA and Ecology. The meeting minutes from the November 19, 1992, meeting will be provided on December 9, 1992. The December 1, 1992 and December 3, 1992 meeting minutes will be transmitted to EPA and Ecology as soon as possible.

RL believes that providing the weekly reports with critical path summaries and the other documents that will be provided under the terms contained in this letter, will satisfy the intent of this proposed milestone.

M-23-27 *USDOE shall, no later than January 15, 1993, devise and implement an operator and tank farm management training program to ensure adequate and appropriate training in areas including monitoring and potential incidents at tank T-101.*

RL and WHC have developed an upgraded Tank Farm Operator Training Program. This program is comprised of four major phases: fundamentals class (mathematics, chemistry and instrumentation, and mechanical system theory), Nuclear Operator systems class (system design and operations, limits and

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precautions, and monitoring requirements), Nuclear Operator on-the-job training (OJT), and specific skill training for Nuclear Process Operators. Implementation of this training program began in January, 1992. Phase 1 (fundamentals class) was completed in September, 1992, and Phase 2 (systems class) has been in progress since October 1992. The schedule for completion of Phase 2, 3, and 4 will be provided on December 9, 1992.

The training material developed for the upgraded Operator Training Program covers all topics discussed in this proposed milestone. The Liquid Level Monitoring and Routines certification packages (to be provided on December 9, 1992) which are being taught in the Nuclear Operator systems class and the Nuclear Operator OJT are in progress. Copies will be provided on December 9, 1992. These certification packages include details of the design and operation of all level detection systems, the requirements for periodic monitoring of these systems, and the requirements for reporting out of limit measurements or abnormal conditions.

In addition to the Liquid Level Monitoring and Routines certification packages, a revised certification package has been developed for Drywells. The Drywells certification package (a copy will be provided on December 9, 1992) contains similar details for system design and operations and monitoring requirements. This material will either be taught as part of the Nuclear Operator training (systems class and OJT) or as part of the specific skills training for Nuclear Process Operators, depending on the outcome of negotiations with the bargaining unit.

The upgraded training material that has been developed for the Operators has also been incorporated into a new supervisor training program which is in the final stages of development. A draft outline of the course content is to be provided on December 9, 1992. All Operations supervisory and line management personnel and Maintenance first line supervisors will be required to complete this training program. The schedule for training the first group of supervisors will be provided December 9, 1992. In order to train the entire Operations and Maintenance supervisory staffs, two to four additional classes will have to be conducted in series after the first class. A schedule for completion of the entire supervisor training effort will be finalized after the first class has been completed and the course content and duration are revised based on the experience gained in the first class.

The current Maintenance Training Program contains little classroom training and formally evaluated OJT. An upgraded Maintenance training program will be developed in fiscal year 1994. This program will be patterned after the upgraded Operator Training Program although the focus will be on skill areas for corrective and preventive maintenance performed by Maintenance and Instrument Technicians. The general content of the Maintenance Training Program will be defined in early fiscal year 1994 to be followed by an implementation schedule.

RL believes that completion of the upgraded Tank Farm Operator and Supervisor Training Programs is essential to improving performance, and with full implementation of the actions described above, RL believes the intent of proposed milestone M-23-27 will be met.

M-23-28 *USDOE shall, no later than December 18, 1992, provide to Ecology and EPA for comment documentation of actions taken in revising its operator and tank farm management training program. Such program shall include, but not be limited to, the following:*

M-23-28a *Training which ensure the timely identification and confirmation of "tank leaks". "Tank leak" shall be defined as any release to the environment such that human health or the environment is threatened, regardless of quantity (Chapter 173-303-145(1) WAC).*

M-23-28b *Training which ensure adequate and timely USDOE and USDOE contractor tank farm management response, and notification of Ecology staff as required by Chapter 173-303-145(2)(c)(i) WAC.*

M-23-28c *The identification of operational requirements for personnel responsible for reading and maintaining tank monitoring and leak detection systems.*

As discussed in the response to proposed milestone M-23-27, the training material for the upgraded Operator and Supervisor Training Program has been developed. This material covers all subject areas outlined in proposed milestones M-23-27 and M-23-28 including subsections (a) through (c). The training material and the schedules for completing the required training will be provided by December 9, 1992. This information is provided to EPA and Ecology as requested in proposed milestone M-23-28. The intent of this proposed milestone is, therefore, completed.

M-23-29 *USDOE shall, no later than December 18, 1992, provide management control and/or tracking procedures which ensure that issues identified on Discrepancy Reports are tracked and acted on as necessary in order to verify proper closure of identified discrepancies. Copies of the amended procedures and other relevant documentation shall be provided to Ecology and EPA no later than January 15, 1993.*

As was discussed in our meeting with Ecology on December 3, 1992, the primary responsibility for identifying out of limit or abnormal level measurement reading is being shifted from Waste Tank Engineering and Projects to Waste Tank Operations. The data sheets used by the Operators to record SST levels are being revised to include baseline levels and the normal/allowable range

for all tanks that are monitored by FICs. This work will be completed by January 15, 1993. Operators are required by procedures to immediately report out of specification or abnormal readings to the Shift Supervisor or Shift Manager. The Shift Supervisors and Shift Managers are responsible for reporting suspected or known leaks from the waste tanks. The reporting procedures will be revised to clearly require reporting any out-of-specification SST level readings and to report failure to obtain the readings (e.g., equipment failure) required by WHC-SD-WM-TI-357.

Training on the changes in the reporting procedures(s) and data sheets associated with the lessons learned on tank T-101 will be completed by February 26, 1993. documentation of the completion of the data sheet revisions, procedure changes and the associated Operator Training will be provided to Ecology by March 8, 1993.

Even though Waste Tank Operations will have the primary responsibility for identifying and reporting indications of waste tank leaks, the Engineering and Operations Projects organization will continue to perform subsequent reviews and analysis of the leak detection data. These reviews will be conducted to trend the data and identify adverse trends or anomalies in the data. The Discrepancy Reports issued to document adverse trends or data anomalies will be controlled and tracked as requested in proposed milestone M-23-29. Copies of the revised procedures to accomplish this will be provided to EPA and Ecology in January 1993.

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Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

93-TPA-036

DEC 18 1992

Mr. Paul T. Day
Hanford Project Manager
U. S. Environmental Protection Agency
Region 10
712 Swift Boulevard, Suite 5
Richland, Washington 99352

Mr. David B. Jansen, P.E.
Hanford Project Manager
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Messrs. Day and Jansen,

HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT)
CHANGE REQUEST FORM M-05-92-05, COMPLIANCE ISSUES WITH SINGLE-SHELL TANK (SST)
241-T-101.

- Ref: (1) Letter, R. Stanley, Ecology, to J. D. Wagoner, RL, no subject,
dated November 12, 1992
- (2) Letter, J. D. Bauer, RL, to R. Stanley, Ecology, HANFORD FEDERAL
FACILITY AGREEMENT AND CONSENT ORDER MILESTONE CHANGE REQUEST
M-23-92-XX, RESPONSE, 93-TPA-027 dated November 19, 1992
- (3) Letter, S. H. Wisness, RL, to P. T. Day, EPA, and D. B. Jansen,
Ecology, HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER
MILESTONE CHANGE REQUEST M-23-92-XX, RESPONSE, 93-TPA-034 dated
December 8, 1992.
- (4) Letter, R. Stanley, Ecology, to J. D. Wagoner, RL, ECOLOGY LETTER
DATED 11/12/92 REGARDING SINGLE-SHELL TANK 241-101-T VIOLATIONS,
dated December 10, 1992

Reference 1 provided to the U.S. Department of Energy, Richland Field Office (RL), the draft Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) change request form M-23-92-XX, "Establish additional Interim milestones for single-shell tank 241-101-T to achieve compliance with interim status requirements," as generated by the State of Washington Department of Ecology (Ecology). That letter, although not specific in its reference to particular paragraphs of the Tri-Party Agreement, was considered by RL to

DEC 18 1992

refer to Article VII, WORK, paragraph 28. The applicability of Paragraph 28 was acknowledge by Roger Stanley in a meeting between RL and Ecology on December 3, 1992. Reference (2) acknowledged that change request and urged discussions commence between RL and Ecology and the U.S. Environmental Protection Agency (EPA). Reference (4) acknowledged progress resulting from the series of meetings, noting the willingness of the parties to work towards resolution of this issue, and stating that the deadline for issue resolution was December 18, 1992.

In efforts to resolve the issues contained within reference (1), RL met with representatives of Ecology on December 3, 9, 15, and 17, 1992. A representative of EPA participated in the December 15 and 17, 1992, meetings. Closure on all issues has been achieved through these meetings and resulted in the establishment of scope and schedules for all proposed milestones.

RL will make all reasonable efforts to resolve the issues associated with the safety questions which concern this tank, including criticality and ferrocynide content to assure that pumping can be directed consistent with maintaining safe conditions around the tank and the preservation of human health and the environment. The issues have been formally communicated to Ecology and EPA in prior change requests and issue papers concerning Tri-Party Agreement milestone M-05-00, complete SST Stabilization. This change request is currently in dispute resolution.

In order to comply with the Ecology-imposed deadline of December 18, 1992, and to document RL's good faith efforts at resolving this issue, enclosed please find Tri-Party Agreement Change Control Form, M-05-92-02E, "Remedial actions necessary for assumed leaking SST Tank 241-T-101," signed by the RL Hanford Project Manager. Pursuant to the Tri-Party Agreement, Article VII, WORK, paragraph 28, this change request provides the RL statement on what actions RL will take and the schedule for those actions.

The original change request is being forwarded to Ecology for disposition. Ecology is requested to sign the change request and to forward it to EPA for approval. Upon approval by all three parties this change request will be in effect, in accordance with the procedures outlined in the Tri-Party Agreement.

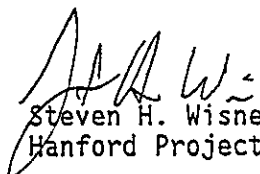
Messrs. Day and Jansen
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DEC 18 1992

If you have any questions on this, please contact me on (509) 376-6798, or
Mr. Gary Bracken, RL Tank Farm Operations, on (509) 373-5219.

Sincerely,


Steven H. Wisness
Hanford Project Manager

EAP:JKY

Attachment

cc w/ attach:
B. Austin, WHC
S. McKinney, Ecology
T. Michelena, Ecology
D. Nylander, Ecology
D. Sherwood, EPA
R. Stanley, Ecology
T. Tebb, Ecology

bcc: EAP OFF FILE
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APPENDIX B-2

NOTICE OF NONCOMPLIANCE 200 EAST AREA SLAB YARD

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

600 West Columbia Street • Kennewick, Washington 98546 • (509) 326-6000

October 27, 1992

CERTIFIED MAIL

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

Mr. Richard French, President
Kaiser Engineers Hanford
P.O. Box 888
Richland, Washington 99352

Dear Messrs. Wagoner and French:

Re: Dangerous Waste Compliance Inspection at 200 East Area Slab
Yard

Thank you for the assistance of Kaiser Engineers Hanford (KEH) personnel during the inspection of the 200 East Area slab yard in July and September 1992. Areas of non-compliance with the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC) at the slab yard have been identified and need to be resolved. Responsibility for completion of corrective action items of this letter is directed to KEH. Responsibility for verification of completion on the enclosed Certificate of Completion is directed to the United States Department of Energy-Richland Operations Office (USDOE-RI), the facility owner.

The violations documented in the KEH slab yard inspection report identify a failure by KEH to properly identify, designate, and manage dangerous waste. These violations are basic to every dangerous waste generator in Washington. It is incumbent upon USDOE-RI and KEH to take any actions necessary to ensure these types of deficiencies do not exist at other facilities on the Hanford site. Violations documented in the inspection report also identify a failure by KEH to provide personnel training records as requested.

A unique situation exists at the KEH slab yard; KEH representatives identify Westinghouse Hanford Company (WHC) as the responsible party for

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John Wagoner
Richard French
Page 2
October 27, 1992

many improperly managed containers being stored in the slab yard. It is Ecology's position that KEH is responsible for proper management of all containers being stored in their facilities.

The Washington State Department of Ecology (Ecology) has chosen, in this case, to issue a Compliance Letter. However, future failure by other Hanford site facilities to comply with these basic generator requirements may result in formal enforcement action. In the future, similar violations found at other facilities will be viewed as repeat violations and may be subject to formal enforcement action (administrative order and/or penalty).

This compliance action is being taken under the authorities granted to Ecology by Chapter 70.105 RCW (Hazardous Waste Management) and using the policy guidance of the Department. In accordance with paragraph 28 of the Hanford Federal Facility Agreement and Consent Order, USDOE-RL has twenty-one (21) days to respond in writing to this Compliance Letter.

Details on the following violations are identified in the enclosed fact sheet:

CLASS I VIOLATIONS

WAC 173-303-016 - Identifying solid waste.

- o failure to identify material as solid waste

WAC 173-303-070 - Designation of dangerous waste.

- o failure to designate solid waste as dangerous waste or extremely hazardous waste
- o failure to properly designate dangerous waste

WAC 173-303-200 - Accumulating dangerous waste on-site.

- o failure to adhere to on-site accumulation requirements
- o failure to transfer/transport waste to a proper storage facility

WAC 173-303-280 - General requirements for dangerous waste management facilities.

- o failure to adhere to treatment, storage, and disposal facility requirements

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John Wagoner
Richard French
Page 3
October 27, 1992

WAC 173-303-330 - Personnel training.

- o failure to provide records identifying the name of each person related to dangerous waste management at the facility as required in the training plan
- o failure to provide records documenting that facility personnel have received and completed the required training

WAC 173-303-380 - Facility recordkeeping.

- o failure to provide employee training records as requested

WAC 173-303-630 - Use and management of containers.

- o failure to identify major risk(s) associated with the contents in the containers
- o failure to perform weekly inspections

CLASS II VIOLATIONS

WAC 173-303-180 - Manifest.

- o failure to properly class, describe, mark, and label waste
- o failure to properly complete the uniform waste manifest

In order to correct the identified violations of WAC 173-303, please complete the following three (3) corrective action items within the time frames specified. Please be advised that failure to correct these non-compliance items may result in the issuance of an administrative order and/or penalty under Chapter 70.105.096 RCW (Hazardous Waste Management).

1. Within forty (40) calendar days of receipt of this letter, KEH shall identify, by physical inspection and document review, the "cradle-to-grave" status of all potentially or known dangerous waste containers and all unidentified/unknown waste containers being stored at the KEH slab yard. This identification shall include points of generation, process operators, individual container numbers, original and current storage locations, accumulation dates, MSDSs, waste designations, waste codes, sample dates for undesignated or "unknown" waste, waste quantities, past and present labels and/or markings, and container conditions.

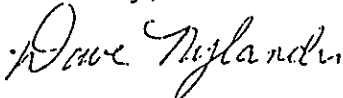
John Wagoner
Richard French
Page 4
October 27, 1992

Provide a report of all findings from this investigation to Ecology within 40 calendar days of receipt of this letter.

2. Within forty (40) calendar days of receipt of this letter, KEH shall provide a specific program for correcting all deficiencies identified in item 1. This program shall identify accomplishment dates and proposed disposal locations. For all deficiencies identified, a "root cause" shall be determined to aid in assessing appropriate long-term corrective actions once short-term problems are corrected. All corrective actions resulting from Ecology inspections, and the investigation required in item 1, must be completed by January 15, 1993. Provide this all-inclusive corrective action program to Ecology within 40 calendar days of receipt of this letter.
3. Within forty (40) calendar days of receipt of this letter, KEH shall modify their training plan to meet WAC 173-303-330(2)(a) requirements. Specifically, KEH shall add the names of the employees filling each position related to dangerous waste management at the facility.

Please do not hesitate to call me at (509) 546-2990 or Laura Russell at (509) 546-2977 should you have questions or require clarification on any of the items in this Compliance letter or the enclosed Certificate of Completion. Please complete and submit the Certificate of Completion to Laura Russell by December 11, 1992.

Sincerely,



David Nylander
Office Manager
Nuclear and Mixed Waste Management Program

DN:lr

Enclosures:

1. Certificate of Completion
2. Fact sheet

cc: Scott Potter, USDOE-RI.
Brian Dixon, KEH
Roger Stanley, Ecology
Dave Jansen, Ecology
G. Thomas Tebb, Ecology

Please complete and return this form to Laura Russell, Washington Department of Ecology, by December 11, 1992.

CERTIFICATE OF COMPLETION

As a representative of the U.S. Department of Energy, I certify, to the best of my knowledge, the completion of items identified below. The items represent compliance actions required for the Kaiser Engineers Hanford slab yard located on the Hanford Reservation, 200 East Area, Facility ID Number WA7890008967, as described in the October 27, 1992 Compliance Letter.

COMPLETION STATUS

(The facility representative shall list completion date and initial each item.)

<u>Corrective</u> <u>Action Items</u>	<u>Due Date</u>	<u>Date Completed</u>	<u>Initials</u>	<u>Comments</u>
Item 1	_____	_____	_____	_____
Item 2	_____	_____	_____	_____
Item 3	_____	_____	_____	_____

Signature of USDOE-RL Representative

Date

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Kaiser Engineers Hanford Compliance Inspection Fact Sheet

Owner U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Operator Kaiser Engineers Hanford Company (KEH)
P.O. Box 888
Richland, WA 99352

Facility/Location KEH Slab Yard, 200 East Area - Hanford Federal
Reservation

Contact Brian Dixon, Manager, KEH Environmental Compliance
(509) 376-7053

Activity Compliance inspection conducted following inadequate response to
informal Ecology notification.

Background

The KEH slab yard is a storage and staging area located in the 200 East Area of the Hanford Federal Reservation (Hanford). The slab yard is used to store drilling related products and materials, to wash down drilling equipment after use in the field, and to manage miscellaneous waste generated as a result of drilling, vehicle maintenance, and spills. Wastes generated are a result of activities in support of Hanford Federal Facility Agreement and Consent Order milestones. Waste streams include drill cuttings, decontamination water, waste oils, rags/filters, epoxy resins, and compactible materials (plastics, personnel protective equipment, gloves, etc.)

The KEH slab yard is not under interim status nor is it a permitted treatment, storage, and disposal (TSD) facility.

Findings

Facility inspection and review of documentation by Ecology revealed the following findings:

Finding #1 - FAILURE TO IDENTIFY MATERIAL AS SOLID WASTE

WAC 173-303-016 Identifying solid waste. (1)(a) The purpose of this section is to identify those materials that are and are not solid wastes. (3)(a) A solid waste is any discarded material that is not excluded by WAC 173-303-017(2) or . . . WAC 173-303-017(5).

During all three inspections, Ecology inspectors observed drums of material that had not been identified as solid wastes, i.e., bore no labels and/or markings. For many drums, KEH representatives had no knowledge of where they came from, what was in them, or who generated them.

Please complete this form and return to Greta P. Davis at 7601 W. Clearwater Ave., Suite 102, Kennewick, WA 99336 by December 14, 1992.

CERTIFICATE OF COMPLETION

As an authorized representative of U.S. Department of Energy, I certify, to the best of my knowledge, the completion status of our facility located on the Hanford Reservation, 300 Area, 305-B Storage Facility ID Number WA7890008967 as shown below.

COMPLETION STATUS

(representative should list completion date & initial each item)

<u>Items of Non-compliance (WAC 173-303)</u>	<u>Required Completion Date</u>	<u>Date of Completion</u>	<u>Initials</u>	<u>Comments</u>
Item 1 - 300 (4)(a)				
Item 2 - 350 (3)(d)				
Item 3 - 380 (1)(b)				
Item 4 - 630 (2), (3), and (8)(b)				

Signature of Authorized Representative

Date _____

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APPENDIX B-3A

RESPONSE TO NOTICE OF NONCOMPLIANCE 305-B STORAGE FACILITY

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Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

DEC 02 1992

93-RPA-061

Mr. David C. Nylander
Nuclear and Mixed
Waste Management Program
State of Washington
Department of Ecology
7601 W. Clearwater, Suite 102
Kennewick, Washington 99336

Dear Mr. Nylander:

DANGEROUS WASTE COMPLIANCE INSPECTION FOR 305-B STORAGE FACILITY .

This letter and enclosure provide the U.S. Department of Energy Richland Field Office (RL) and Pacific Northwest Laboratory (PNL) response to your October 30, 1992, letter entitled "Dangerous Waste Compliance Inspection for 305-B Storage Facility" (305-B). This is a consolidated and unified response which provides RL and PNL responses to all pertinent issues and the specific requested information in Items 1 to 5 of your letter.

This response has been prepared pursuant to Part II, Article VII, Paragraph 28, of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), that requires RL to respond with a plan and schedule of actions to any notice of violation within 21 days of receipt of notice. We confirmed by phone with Mr. Tom Tebb, of your office, that your October 30, 1992, letter extended the 21-day period for response in this case to 30 calendar days from the date of receipt.

As a general comment, we are concerned that Ecology has alleged violations with less than adequate factual verification or regulatory basis. We have identified several inaccuracies in the October 30, 1992, letter and fact sheet affecting each of the Findings. These are addressed individually in the enclosed response.

In consideration of the actual circumstances surrounding this inspection, we must take specific exception to the statement in the October 30, 1992, letter that there is "a failure by PNL to properly manage dangerous waste." This statement is totally unjustified and is unsubstantiated by any of the conditions noted in the letter. It is also inconsistent and fairly well

DEC 02 1992

Mr. David C. Nylander
92-RPA-061

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contradicted by the statements of the lead inspector, Mr. Steve Moore, at the inspection closeout on July 16, 1992. At that time, Mr. Moore expressly indicated that there were "no significant issues, no show stoppers and that the Ecology letter and report would reflect only minor concerns." The statement is also incompatible with the fact that the inspector had expressed specific agreement with the actions taken by 305-B unit staff to address Ecology's concerns on the spot during the July inspection. RL and PNL left the inspection closeout with the specific impression that Ecology's concerns had been addressed in a satisfactory manner.

RL and PNL strive at all times to be in full compliance with the applicable requirements. We rely on and respond in good faith, to the statements, observations and professional opinions that are expressed to us by Ecology inspectors during meetings, site visits and inspections. RL and Ecology have agreed that the goal of our working relationship should be responsible, planned, and controlled mutual action that will achieve the necessary level of compliance. To achieve this goal we believe we should have a good working relationship which is based on professional credibility, mutual respect and trust.

In keeping with our policy to operate in compliance with applicable requirements, we wish to emphasize that the issues raised in your letter have been seriously evaluated. Specific responses to Items 1 through 5 are provided in the enclosure.

If you have any questions, please contact me or P. J. Krupin, of my staff, on (509) 372-1112 or E. M. Bowers, PNL Onsite Office on (509) 376-9922.

Sincerely,



James D. Bauer, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy

EAP:PJK

Enclosure

cc w/encl:

P. T. Day, EPA
T. D. Chikalla, PNL
H. T. Tilden, PNL
D. S. Broussard, PNL
W. J. Bjorklund, PNL

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ENCLOSURE
U.S. DEPARTMENT OF ENERGY, RICHLAND FIELD OFFICE
PLAN AND SCHEDULE OF ACTION
&
RESPONSE TO ECOLOGY OCTOBER 30, 1992 INSPECTION REPORT
FOR THE 305-B STORAGE UNIT

RESPONSE TO SPECIFIC ISSUES:

1. The compliance letter should, but does not, reference or cite the applicability of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement or TPA) to the letter. 305-B is a treatment, storage, and disposal (TSD) facility operating under interim status. The Ecology compliance letter should clearly cite the applicable TPA provisions for alleging findings of non-compliance found in Paragraph 28. Any alleged violations or findings should be brought to the attention of RL pursuant to the provisions of Paragraph 28. We have treated your letter as such and are responding pursuant to the procedures specified in Paragraph 28.
2. We have been unable to identify a basis or citation for requiring a Certificate of Completion, as is included in the October 30, 1992 letter. We will continue to document the compliance status of 305-B in the documentation developed in our environmental programs. Such documentation will be kept at RL facilities and in our recordkeeping files as appropriate.

RESPONSE TO SPECIFIC ITEMS

Item 1

Within thirty (30) calendar days of receipt of this letter, PNL shall submit to Ecology a schedule to sample and designate container #13040.

Response:

We object to the Finding that a violation of WAC 173-303-300 occurred. There is no requirement to sample and analyze wastes when process knowledge is sufficient to designate the waste. WAC 173-303-300(2) states, in pertinent part, "... analysis may ... consist of existing published or documented data on the dangerous waste ..."

The material in question, Aerosol OT (container #13040), became waste when it dried out and became unusable to the owner. The material was properly designated based on existing published and documented process knowledge, i.e. the information on the MSDS plus documented knowledge that the solvent had evaporated. The Aerosol OT was 75% sodium dioctylsulfosuccinate, 18% water, and 7% ethanol. The proper waste designation of either a 75% solution or a 100% solid cake is W101/EHW/Non-RCRA waste. It was properly designated per WAC 173-303-070. The fact that the water and ethanol had evaporated had no effect on the final designation of the material. This material was manifested and shipped to a permitted offsite TSD facility on August 20, 1992.

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Item 2

Within thirty (30) calendar days of receipt of this letter, PNL shall provide Ecology with a list of the responsible emergency and contingency plan coordinators.

Response:

We object to the Finding that a violation of WAC 173-303-350 occurred. The contingency plan shown in the 305-B Part B permit application is indeed current and correct. The list of current emergency contacts, as required by WAC 173-350(3)(d), is maintained at the facility as required by WAC 173-303-350(4)(a).

The language in the 305-B contingency plan is consistent with that found in other Hanford TSD contingency plans. The 305-B permit has been through three Notice of Deficiency cycles and has been accepted by Ecology permit writers, who also report to the same supervisor as do the regulators who performed the 305-B inspection. Ecology has previously agreed that names of responsible personnel would not be provided in unit contingency plans submitted as part of the units' permit applications; see, e.g., T.L. Nord to S.H. Wisness letter, March 23, 1990, "Notice of Deficiency for 616 Nonradioactive Dangerous Waste Storage Facility".

Item 3

Within thirty (30) calendar days of receipt of this letter, PNL shall provide Ecology with an accurate inventory of waste stored within the 305-B facility using the required units of measure.

Response:

The inventory requested in this Item is provided in the Attachment to this enclosure.

What the October 30, 1992 letter fails to recognize is that the error noted by Ecology at the time of the inspection was diagnosed as a software problem and was corrected immediately during the inspection.

The Ecology inspector made a correct observation that the database record must be current if it to be used as part of the written record. WAC 173-303-380(1) requires the owner or operator to keep a written operating record at his facility. The "written record" maintained at 305-B includes two types of documents, 1) the Chemical Disposal/Recycle Request (CDRR) form for those wastes coming into the facility and 2) the shipping manifests for waste leaving the facility. These written records, however, do not adequately define the quantity and location of waste as it is managed within 305-B. We have chosen to maintain, in addition to the aforementioned written records, a computerized database of hazardous and radioactive mixed waste (RMW) stored at 305-B. This is done because it is impractical to instantaneously access the vast amount of data on the written CDRR form. At the time of the inspection, we recognized that the database has not always been maintained daily. We have reconciled the physical location and inventory records with the database records.

Item 4

Within thirty (30) calendar days of receipt of this letter, PNL shall properly affix labels to drums and containers throughout the 305-B facility.

Response:

We object to the alleged violation of WAC 173-303-630(2) and (3). All waste containers are labeled in compliance with WAC 173-303-200(1)(d), as required, prior to acceptance at 305-B. The Ecology comments are in error, are based on misunderstanding of the operations at 305-B, and inappropriate interpretations of the applicability of the cited regulations to the facility.

While in 305-B, staff routinely labpack or consolidate through bulking the thousands of lab chemical bottles received annually. These labpack or bulk containers are then properly labeled.

We object to the compliance letter and Fact Sheet statement that a dented container in storage at 305-B was "not in good condition". We object to these statements because the container was not leaking and was in a reasonable condition for storage. The dented container was a fiber drum with a plastic inner liner. The dent in the exterior of the fiber drum in no way impaired the ability of the container to contain the solid mass inside. The dent did not present a risk which would require action under the applicable regulations.

It should also be noted that, since 305-B is currently operating under interim status, that the reference to WAC 173-303-630(2) is incorrect. Interim status facilities are required to comply with interim status standards of 40 CFR and certain WAC sections listed in WAC 173-303-400(3) in lieu of the final facility standards listed in WAC 173-303-600.

Item 5

Within thirty (30) calendar days of receipt of this letter, PNL shall verify compliance with WAC storage requirements under the Uniform Fire Code.

Response:

We object to the alleged violation of WAC 173-303-630(8)(b). This provision is inapplicable to interim status facilities. We provided Ecology Inspector Laura Russell information addressing this issue via FAX on July 30, 1992. The faxed information documented that 305-B utilizes a grossly conservative estimation of inventory by assuming dilute solvent mixtures are pure components. This over-conservatism is more fully protective of human health and the environment and is a prudent best management practice. It is not an action that is required by WAC 173-303.

Since 305-B is currently operating under interim status, the reference to WAC 173-303-630(8) is incorrect. Interim status facilities are required to comply with interim status standards of 40 CFR and certain WAC sections listed in WAC 173-303-400(3) in lieu of the final facility standards listed in WAC 173-303-600.

ATTACHMENT

305-B Storage Unit Hazardous Waste Inventory by Location
(effective 11/20/92)

<u>Location</u>	<u>Hazardous Waste Description</u>	<u>Weight, kgs</u>
Cell 1	Acids and Oxidizers	1474.7
Cell 2	Poisons, ORM and PCBs	549.4
Cell 3	Caustics, State-Only Waste and *Non-regulated Waste	858.4
Cell 4	Organics	504.4
Cell 5 (Bulking Module)	Organics	170.4
Storage Area 6	Asbestos	0.5
Cell 7	Radioactive Mixed Waste (excluding flammable liquids)	475.2
Storage Area 8	Ignitables	618.1
Storage Area 9	Radioactive Mixed Waste (flammable materials only)	498.0
Storage Area 11	State-Only, ORM, *Non-regulated Waste, labpacks and bulked waste containers prior to offsite shipment (drums only)	8412.4
Storage Area 12	Oxidizers, labpacks and bulked waste containers prior to offsite shipment (drums only)	3583.4
Storage Area 13	Caustics (drums only)	733.5
Storage area 14	Acids (drums only)	155.2

Note: Total Class I flammable liquids in storage is approximately 190 gallons
(must be less than 480 gallons).

* not included in totals

DON'T SAY IT -- Write It!

Date: November 27, 1992

To: Paul Krupin, DOE-RL

From: Kyle Webster, Battelle,
Pacific NW Laboratory

Subject: 305-B Storage Unit Hazardous Waste Inventory

The attached subject inventory is submitted in response to your telephone request on 11/25.

Call me on 376-7688 if you have any questions concerning this information.

cc: WJB, HTT w/o att.

Kyle Webster

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INVENTORY BY CELL

Cell: 1

ALL INFORMATION CONTAINED
 HEREIN IS UNCLASSIFIED
 DATE 11/25/92 BY 11/25/92

ITEM #	CELL	WASTE DESCRIPTION	DRUM #	VOLUME KGS
13189	1	HYDROFLUORIC ACID FROM LAB	368L	0.1500 kgs
13164	1	BATTERIES - LEAD ACID	13164	16.0000 kgs
14909	1	HYDROCHLORIC ACID 28%, NITRIC ACID 9% AND HYDROFLUORIC ACID .01 SOLUTION FROM LAB	368L	3.0000 kgs
15132	1	HYDROCHLORIC ACID 28%, NITRIC ACID 9%, HYDROFLUORIC ACID .01 AND WATER 62.99% SOLUTION FROM LAB	368L	2.5000 kgs
16050	1	NITRIC ACID 20%, SILVER .5%, CHROME/SELENIUM ALL TRACE, WATER 80% FROM LAB	16050	250.0000 kgs
16552	1	HYDROFLUORIC ACID 90%, SILICON DIOXIDE 10% FROM LAB	368L	4.5000 kgs
15973	1	HYDROFLUORIC ACID 48%, WATER 52% SOLUTION FROM LAB	368L	0.5000 kgs
16412	1	SULFURIC ACID 12.6%, HYDROFLUORIC ACID 2.5%, BORIC ACID 1.2%, FERRIC AMMONIUM SULFATE .2%, AMMONIUM	368L	3.0000 kgs
16413	1	SULFURIC ACID 12.6%, HYDROFLUORIC ACID 2.5%, BORIC ACID 1.2%, FERRIC AMMONIUM SULFATE .2%, AMMONIUM	368L	3.0000 kgs
16414	1	SULFURIC ACID 12.6%, HYDROFLUORIC ACID 2.5%, BORIC ACID 1.2%, FERRIC AMMONIUM SULFATE .2%, AMMONIUM	368L	3.0000 kgs
16418	1	ETHANOL 2.6%, SULFURIC ACID .8%, BORON .5%, HYDROFLUORIC ACID .4%, CITRATE .2%, WATER 95.5% SOLUTION	368L	20.0000 kgs
16780	1	TUNGSTEN SPECTROMETRIC SOLUTION NITRIC ACID 7%, HYDROFLUORIC ACID 4%, WATER 88.99% SOLUTION FROM LAB	368L	0.1000 kgs
16786	1	MULTIELEMENT MIX D - NITRIC ACID 5%, HYDROFLUORIC ACID 1%, ALUMINIUM .01%, BERYLLIUM .01%, BORIC AC	368L	0.0454 kgs
17266	1	NITRIC ACID 12.5%, HYDROFLUORIC ACID 1.1%, WATER 86.4% SOLUTION FROM LAB		19.0000 kgs
17489	1	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB		19.0000 kgs
17490	1	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB		19.0000 kgs

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INVENTORY BY CELL

Cell: 1

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
17491	1	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB		19.0000 kgs
18341	1	SODIUM CHLORIDE 16%, POTASSIUM CHLORIDE 8%, CITRIC ACID 2.4%, IRON .8%, WATER 72.8% SOLUTION FROM L		20.0000 kgs
18433	1	SULFURIC ACID 15%, PHOSPHORIC ACID 6%, HYDROFLUORIC ACID 2%, VANADIUM .05%, WATER 77% SOLUTION FROM		20.0000 kgs
18437	1	HYDROCHLORIC ACID 5%, NITRIC ACID 2%, SELENIUM (21 ppm) .0021%, WATER 93% SOLUTION FROM LAB		20.0000 kgs
18438	1	HYDROCHLORIC ACID 5%, NITRIC ACID 2%, SELENIUM (1.2 ppm) .00012%, WATER 93% SOLUTION FROM LAB		20.0000 kgs
18439	1	NITRIC ACID 1%, SELENIUM (500 ppm) .05%, WATER 98.5% SOLUTION FROM LAB		20.0000 kgs
18527	1	COPPER SULFATE 18%, SULFURIC ACID 7.5% SOLUTION FROM LAB		64.5000 kgs
18528	1	COPPER SULFATE 18%, SULFURIC ACID 7.5% SOLUTION FROM LAB		64.5000 kgs
18529	1	COPPER SULFATE 18%, SULFURIC ACID 7.5% SOLUTION FROM LAB		64.5000 kgs
18530	1	COPPER SULFATE 18%, SULFURIC ACID 7.5% SOLUTION FROM LAB		64.5000 kgs
18531	1	COPPER SULFATE 18%, SULFURIC ACID 7.5% SOLUTION FROM LAB		64.5000 kgs
18532	1	COPPER SULFATE 18%, SULFURIC ACID 7.5% SOLUTION FROM LAB		64.5000 kgs
18533	1	COPPER SULFATE 18%, SULFURIC ACID 7.5% SOLUTION FROM LAB		30.5000 kgs
18534	1	COPPER SULFATE 18%, SULFURIC ACID 7.5% SOLUTION FROM LAB		30.5000 kgs
Total				929.7954 kgs

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INVENTORY BY CELL

Cell: 1A

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
12467	1A	2-ETHYLHEXYL NITRATE 100% FROM LAB		0.1160 kgs
11469	1A	MERCURIC NITRATE		0.0750 kgs
12405	1A	NITROGEN DIOXIDE	12405	1.0000 kgs
15100	1A	MERCURIC NITRATE FROM LAB		0.0100 kgs
16430	1A	ACETIC ACID 97%, PERCHLORIC ACID .03%, IRON .007%, NICKEL .003%, CHROMIUM .001%, SILICON >.01% FROM		0.5000 kgs
16423	1A	ACETIC ACID 97%, PERCHLORIC ACID 3%, CHROMIUM/IRON/NICKEL ALL TRACE FROM LAB		0.5000 kgs
17182	1A	PERACETAIC ACID 35%, WATER 65% SOLUTION FROM LAB		0.5000 kgs
17473	1A	ALUMINUM NITRATE 24.1%, ZIRCONYL NITRATE 5.6%, SODIUM FLUORIDE 3.1%, SODIUM CHLORIDE .9%, BORIC ACI		9.5500 kgs
17481	1A	ALUMINUM NITRATE 18.2%, SODIUM FLUORIDE 3.4%, ZIRCONYL NITRATE 5.4%, SODIUM SILICATE .5%, BORIC ACI		7.1400 kgs
17522	1A	SODIUM NITRATE 8.47%, SOIDUM NITRITE 10.06%, SOIDUM ALUMINATE 8.1% AND OTHER SODIUM COMPOUNDS FROM		17.0100 kgs
17523	1A	SODIUM NITRATE 18.5%, SOIDUM NITRITE 12.8%, SOIDUM ALUMINATE 10.1% AND OTHER SODIUM COMPOUNDS FROM		25.0000 kgs
17643	1A	NITRIC ACID 65%, WATER 35% SOLUTION FROM LAB		0.0100 kgs
17714	1A	POTASSIUM PERSULFATE 4.2%, IRON NITRATE 1.6%, PALLIDIUM NITRATE 2.7%, NICKEL NITRATE 4.2%, METHANOL		10.0000 kgs
17796	1A	MERCURIC NITRATE 50%, WATER 50% SOLUTION FROM LAB		0.0500 kgs
18249	1A	NITRIC ACID 65%, WATER 35% SOLUTION FROM LAB		2.5000 kgs
18321	1A	OXALIC ACID .7%, AMMONIUM HYDROXIDE 1%, NITRIC ACID 58%, IRON NITRATE .04%, SODIUM CARBONATE .5%, W		2.5000 kgs
18140	1A	NITRIC ACID CONCENTRATED 60%, WATER 39%, ACETONE 1% SOLUTION FROM LAB		7.0000 kgs

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INVENTORY BY CELL

Cell: 1A

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
18190	1A	SILVER NITRATE 34%, WATER 66% SOLUTION FROM LAB		0.0500 kgs
18305	1A	RUTHENIUM NITROSYL NITRATE 18.5%, WATER 81.5% SOLUTION FROM LAB		1.0000 kgs
18306	1A	PALLADIUM NITRATE 8%, WATER 92% SOLUTION FROM LAB		0.1000 kgs
18307	1A	RHODIUM NITRATE 10%, WATER 90% SOLUTION FROM LAB		0.1000 kgs
18665	1A	HYDROGEN PEROXIDE 30%, WATER 70% SOLUTION FROM LAB		1.0000 kgs
18666	1A	HYDROGEN PEROXIDE 30%, WATER 70% SOLUTION FROM LAB		1.0000 kgs
			Total	86.7110 kgs

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INVENTORY BY CELL

Cell: 1B

<u>ITEM#</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM#</u>	<u>VOLUME KGS</u>
11822	1B	STANNIC CHLORIDE		0.5000 kgs
11217	1B	STANNIC CHLORIDE		2.0000 kgs
11499	1B	SODIUM BISULFATE		0.2000 kgs
11509	1B	SODIUM BISULFATE		0.2500 kgs
12671	1B	PHOSPHOROUS PENTOXIDE		0.9000 kgs
12978	1B	INEL-4 SERIES A SLUDGE		1.0000 kgs
13513	1B	BIS(2-ETHYL HEXYL) PHOSPHATE SPILL CLEANUP FROM LAB	13513	7.0000 kgs
13792	1B	BATTERIES - GELL CELL FROM PLANT MAINTENANCE	13792	18.9000 kgs
13314	1B	CADMIUM NITRATE FROM LAB		0.1130 kgs
14062	1B	STRONTIUM NITRATE FROM LAB		0.3000 kgs
15078	1B	3-CHLOROPERBENZOIC ACID 65% SOLUTION FROM LAB		0.0250 kgs
15062	1B	6-VOLT PB/ACID BATTERY (DAMAGED) FROM LAB		59.0000 kgs
15097	1B	CADMIUM NITRATE FROM LAB		0.0100 kgs
12881	1B	STRONTIUM NITRATE		0.2000 kgs
12882	1B	STRONTIUM NITRATE		0.2000 kgs
17404	1B	NIOBIUM NITRIDE FROM LAB		0.5000 kgs
17515	1B	SODIUM NITRATE 23.82%, SODIUM NITRITE 19.33%, SODIUM ALUMINATE 15.56% AND OTHER SODIUM COMPOUNDS FR		1.0210 kgs
17516	1B	SODIUM NITRATE 23.89%, SODIUM NITRITE 19.39%, SODIUM ALUMINATE 7.82% AND OTHER SODIUM COMPOUNDS FRO		1.0000 kgs
17517	1B	SODIUM NITRATE 23.89%, SODIUM NITRITE 19.39%, SODIUM ALUMINATE 7.82% AND OTHER SODIUM COMPOUNDS FRO		1.0000 kgs
17518	1B	SODIUM NITRATE 23.89%, SODIUM NITRITE 19.39%, SODIUM ALUMINATE 7.82% AND OTHER SODIUM COMPOUNDS FRO		1.0000 kgs
17519	1B	SODIUM NITRATE 20.66%, SODIUM NITRITE 16.78%, SODIUM ALUMINATE 20.6% AND OTHER SODIUM COMPOUNDS FRO		1.0000 kgs

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INVENTORY BY CELL

Cell: 1B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
17520	1B	SODIUM NITRATE 20.66%, SODIUM NITRITE 16.78%, SODIUM ALUMINATE 20.66% AND OTHER SODIUM COMPOUNDS FR		1.0000 kgs
17521	1B	SODIUM NITRATE 20.66%, SODIUM NITRITE 16.78%, SODIUM ALUMINATE 20.66% AND OTHER SODIUM COMPOUNDS FR		1.0000 kgs
17843	1B	SODIUM PEROXIDE FROM LAB		0.5000 kgs
17844	1B	SODIUM PEROXIDE FROM LAB		0.2000 kgs
17759	1B	SODIUM NITRATE FROM LAB		0.5000 kgs
17760	1B	POTASSIUM PERMANGANATE FROM LAB		0.4540 kgs
17767	1B	MAGNESIUM PERCHLORATE FROM LAB		0.5000 kgs
17768	1B	MAGNESIUM PERCHLORATE FROM LAB		0.5000 kgs
17769	1B	MAGNESIUM PERCHLORATE FROM LAB		0.5000 kgs
17770	1B	MAGNESIUM PERCHLORATE FROM LAB		0.5000 kgs
17771	1B	MAGNESIUM PERCHLORATE FROM LAB		0.5000 kgs
17772	1B	MAGNESIUM PERCHLORATE FROM LAB		0.5000 kgs
17773	1B	MAGNESIUM PERCHLORATE FROM LAB		0.5000 kgs
17777	1B	STANNIC CHLORIDE FROM LAB		0.5000 kgs
17779	1B	CALCIUM HYPOCHLORITE FROM LAB		0.5000 kgs
17973	1B	SILVER NITRATE FROM LAB		0.1000 kgs
18034	1B	GRAPHITE 90.2%, BORIC ACID 5.7%, CADMIUM OXIDE 1.1%, COBALT(III) OXIDE 1.4%, MANGANESE DIOXIDE 1.6%		0.0010 kgs
18135	1B	MERCUROUS NITRATE FROM LAB		0.4540 kgs
18225	1B	AMMONIUM CENIUM(IV) NITRATE FROM LAB		0.1000 kgs

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INVENTORY BY CELL

Cell: 1B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18254	1B	POTASSIUM PERMANGANATE FROM LAB		0.1000 kgs
18270	1B	CALCIUM NITRATE FROM LAB		0.4535 kgs
18186	1B	POTASSIUM NITRATE FROM LAB		0.4530 kgs
18199	1B	RUBIDIUM NITRATE FROM LAB		0.0010 kgs
18403	1B	SODIUM PEROXIDE FROM LAB		0.1000 kgs
18404	1B	SODIUM PEROXIDE FROM LAB		0.5000 kgs
18417	1B	SODIUM PEROXIDE FROM LAB		0.4500 kgs
18537	1B	ZINC CHLORIDE FROM LAB		0.5000 kgs
18589	1B	SODIUM NITRITE FROM LAB		0.4540 kgs
18590	1B	PHOSPHORS PENTOXIDE FROM LAB		0.1000 kgs
18618	1B	ALUMINUM NITRATE FROM LAB		0.5000 kgs
18619	1B	ALUMINUM NITRATE FROM LAB		0.5000 kgs
18620	1B	ALUMINUM NITRATE FROM LAB		0.5000 kgs
18621	1B	ALUMINUM NITRATE FROM LAB		0.5000 kgs
18622	1B	BARIUM NITRATE FROM LAB		0.4530 kgs
18623	1B	BARIUM NITRATE FROM LAB		0.4530 kgs
18627	1B	AMMONIUM BIFLUORIDE FROM LAB		2.2676 kgs
18641	1B	POTASSIUM NITRATE FROM LAB		0.4500 kgs
18724	1B	AMMONIUM NITRATE FROM LAB		0.5000 kgs
18869	1B	ZINC CHLORIDE 100%		0.0500 kgs
Total				114.2131 kgs

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Finding #2 - FAILURE TO DESIGNATE WASTE

WAC 173-303-070 Designation of dangerous waste. (1)(a) This section describes the procedures for determining whether or not a solid waste is DW or EHW. (b) . . . Any person who must determine whether or not his solid waste is designated must follow the procedures set forth in subsection (3) of this section.

During all three inspections, Ecology inspectors observed drums of material that had not been identified as solid wastes, i.e., bore no labels and/or markings, and consequently had not been designated. Additionally, many drums identified as waste had not been designated (e.g., WHC Project drums, #3U-2U17-90-011 drum, rags/filters drums, etc.). KEH failed to provide documentation as to whether the materials were dangerous wastes or extremely hazardous wastes.

The two waste containers identified on manifest #00078 were not properly designated:

- Drum HW91-29 containing 1,1,1-trichloroethane and dioxane designates as Hazardous Waste Liquid, n.o.s., with Waste Codes WT02, WP01, WC01, and FO02. On manifest #00078, the drum HW91-29 was erroneously designated as Waste Flammable Liquid, n.o.s., and assigned Waste Codes D001 and WT02. However, the waste was not ignitable (D001).
- Drum HW91-28 containing miscellaneous inert material contaminated with epoxy designates as Non-RCRA Waste Solid, with Waste Codes WT02 and WP01. On manifest #00078, the drum HW91-28 was erroneously designated as Hazardous Waste Solid, n.o.s., and assigned Waste Codes D001 and WT02. Again, the waste was not ignitable.

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Finding #3 - FAILURE TO PROPERLY PREPARE A MANIFEST

WAC 173-303-180 Manifest. Before transporting dangerous waste or offering dangerous waste for transport off the site of generation, the generator shall prepare a manifest and shall follow all applicable procedures described in this section. (1) . . . The manifest must be prepared . . . as described in the uniform manifest Appendix of 40 CFR Part 262, and in addition must contain the following information in the specified shaded items of the uniform manifest: (c) Item H - The designated receiving facility's telephone number must be provided in this space . . .

40 CFR Part 262, Appendix. Item 11. Enter the U.S. DOT Proper Shipping Name, Hazard Class, and ID Number (UN/NA) for each waste as identified in 49 CFR 171 through 177.

49 CFR 171.2 General requirements. (a) No person may offer or accept a hazardous material for transportation in commerce unless the material is properly classed, described, packaged, marked, labeled, and in condition for shipment as required or authorized by this subchapter . . .

On manifest #00078, the material offered for transport was not properly designated and therefore not properly classed, described, marked, or labeled.

On manifest #00078, the receiving facility's telephone number was not provided.

Finding #4 - FAILURE TO MEET ON-SITE ACCUMULATION STANDARDS

WAC 173-303-200 Accumulating dangerous waste on-site. (1) A generator . . . may accumulate dangerous waste on-site without a permit for ninety days or less after the date of generation, provided that: (a) All such waste is shipped off-site to a designated facility or placed in an on-site facility which is permitted by the department . . . in ninety days or less. . . . A generator who accumulates dangerous waste for more than ninety days is an operator of a storage facility and subject to the facility requirements of this chapter and the permit requirements of this chapter as a storage facility . . . (b) The waste is placed in containers and the generator complies with WAC 173-303-630 (2), (3), (4), (5), (6), (8), and (9) . . . (c) The date upon which each period of accumulation begins is marked and clearly visible for inspection on each container . . . (e) The generator complies with the requirements for facility operators contained in WAC 173-303-320 . . . (general inspection). (2) . . . the ninety-day accumulation period begins on the date that: (c) The quantity of dangerous waste being accumulated in containers in a satellite area exceeds fifty-five gallons of dangerous waste or one quart of acutely hazardous waste . . . For the purposes of this section, a satellite area shall be a location at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste.

WAC 173-303-280 General requirements for dangerous waste management facilities. (1) Applicability. The requirements of WAC 173-303-280 through 173-303-395 apply to all owners and operators of facilities which store, treat, or dispose of dangerous wastes . . .

Waste containers HW91-28 and HW91-29, after being shipped from the point of generation on May 29, 1991, were not managed under WAC 173-303-200, on-site accumulation requirements, nor were they managed under WAC 173-303-280 through WAC 173-303-395, TSD facility requirements, or WAC 173-303-400, Interim status facility requirements.

Finding #5 - FAILURE TO TRANSFER/TRANSPORT WASTE TO A PROPER STORAGE FACILITY

WAC 173-303-200 Accumulating dangerous waste on-site. (1) A generator . . . may accumulate dangerous waste on-site without a permit for ninety days or less after the date of generation, provided that: (a) All such waste is shipped off-site to a designated facility or placed in an on-site facility which is permitted by the department . . . in ninety days or less. . . . A generator who accumulates dangerous waste for more than ninety days is an operator of a storage facility and subject to the facility requirements of this chapter and the permit requirements of this chapter as a storage facility . . .

Waste containers #HW91-28 and #HW91-29 were not shipped to a permitted storage facility.

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Finding #6 - FAILURE TO MEET PERSONNEL TRAINING REQUIREMENTS

WAC 173-303-330 Personnel Training. (2) Written training plan. The owner or operator shall develop a written training plan which must be kept at the facility and which must include the following documents and records: (a) For each person related to dangerous waste management at the facility, the job title, the job description, and the name of the employee filling each job. The job description must include the requisite skills, education, other qualifications, and duties for each position. . . . (c) Records documenting that facility personnel have received and completed the training required by this section.

KEH failed to provide records identifying the name of each person related to dangerous waste management at the facility as required in the training plan. KEH also failed to provide records documenting that facility personnel have received and completed the training required by this section. As a result, Ecology considers the personnel deficient in training requirements.

Finding #7 - FAILURE TO PROVIDE TRAINING RECORDS

WAC 173-303-380 Facility recordkeeping. (3) Availability, retention and disposition of records. (a) All facility records, including plans, required by this chapter must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the department who is designated by the director.

Ecology inspectors requested to be provided personnel training records. KEH failed to provide the records.

Finding #8 - FAILURE TO PROPERLY MANAGE AND STORE WASTE CONTAINERS

WAC 173-303-630 Use and management of containers. (3) Identification of containers. The owner or operator must label containers in a manner which adequately identifies the major risks(s) associated with the contents of the containers . . . (6) Inspections. At least weekly, the owner or operator must inspect areas where containers are stored . . .

Because the wastes on manifest #00078 were erroneously designated, the containers did not adequately nor accurately identify the major risk(s) associated with the contents of the containers.

Weekly inspections were not performed on containers HW91-28 and HW91-29.

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APPENDIX B-2A

RESPONSE TO NOTICE OF NONCOMPLIANCE 200 EAST AREA SLAB YARD

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Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99362

BJD Redistribution
CE Anderson
EC Staff

NOV 18 1992

93-RPA-051

Mr. David C. Nylander
Nuclear and Mixed Waste Program
State of Washington
Department of Ecology
7601 West Clearwater Suite 102
Kennewick, Washington 99336

Dear Mr. Nylander:

DANGEROUS WASTE COMPLIANCE INSPECTION AT 200 EAST SLAB YARD

This letter and enclosure provide the U.S. Department of Energy, Richland Field Office (RL) response to your October 27, 1992, letter entitled "Dangerous Waste Compliance Inspection at 200 East Slab Yard". This response has been prepared pursuant to Part II, Article VII, Paragraph 28, of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) that requires the U. S. Department of Energy (DOE) to respond with a plan and schedule of actions to any notice of violation within 21 days of receipt of notice.

We have identified several serious errors in the fact finding and regulatory basis for the alleged violations cited in the inspection report. These are addressed individually in the enclosed response. More importantly, we feel that your letter is inconsistent with Ecology's often repeated statement and position that when DOE or a contractor proactively identifies regulatory concerns and undertakes immediate corrective action, that such matters would be considered favorably by Ecology. The Ecology position, we believe, was based upon the sound proposition that there is a beneficial incentive to DOE and its contractors to taking appropriate and diligent action. In this case, Ecology has taken enforcement action involving a single occurrence that Kaiser Engineers Hanford Company (KEH) itself identified and brought to Ecology's attention on August 21, 1992. That situation was immediately rectified and was of no regulatory concern as of the date of Ecology's final inspection. Ecology's October 27, 1992, enforcement action inaccurately and inappropriately depicts the circumstances associated with this occurrence. We are concerned that this type of action will act as a serious disincentive to the efficient communication of environmental compliance matters at RL.

We also feel that fairness would require that inspection reports distinguish between the portrayal of activities necessary to demonstrate compliance with regulations with those that are prudent or advantageous from a best management practice standpoint.

The enclosure sets forth our position on each issue presented by your October 27, 1992 letter and provides an item-by-item response to the action items requested. The requested items are being actively addressed by RL and

Mr. Nylander
93-RPA-051

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KEH consistent with our commitment to operate our facilities in compliance with applicable requirements. The supplemental information requested in Items 1, 2 and 3 will be provided in a separate transmittal to your office by December 31, 1992.

If you have any questions, please contact Mr. P. J. Krupin on (509) 372-1112 or Mr. Brian Dixon, KEH on (509) 376-7053.

Sincerely,

James D. Bauer

James D. Bauer, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy

EAP:PJK

Enclosures

cc w/encl:

P. T. Day, EPA
R. T. French, KEH
S. J. Bensussen, KEH
B. J. Dixon, KEH
J. T. Lilly, KEH

93138037078

ENCLOSURE
U.S DEPARTMENT OF ENERGY RICHLAND FIELD OFFICE
PLAN AND SCHEDULE OF ACTION
&
RESPONSE TO ECOLOGY OCTOBER 27, 1992 INSPECTION REPORT
OF THE 200 EAST AREA SLAB YARD

RESPONSE TO SPECIFIC ISSUES:

1. As a matter of clarification, it should be noted that the compliance inspection sheet attached to the October 27, 1992 letter identifies the Slab Yard as a "Facility" and Kaiser Engineers Hanford Company (KEH) as the "Operator". The Slab Yard is not a "facility" as defined in WAC 173-303, nor does KEH meet the definition of an "operator" as defined in the regulations.
2. We object to Findings 1 and 2 because there is no obligation or duty under WAC 173-303 to label and mark drums of solid waste that do not contain hazardous or dangerous waste.
3. We object to Finding 3 because as applied to the cited manifest (#00078), WAC 173-303 does not require utilization of the Uniform Waste Manifest. WAC 173-303 applies to wastes transported or offered for transport off the site of generation (emphasis added). Manifest #00078 was used to document an "on-site movement" of waste consistent with the definition of "on-site" in WAC 173-303-040. WAC 173-303-040 stipulates that travel can occur perpendicular to a public right of way, or that right-of-way can be controlled and made inaccessible to the public, and still be considered on-site. There are no shipping paper requirements for on-site movements. On-site waste tracking is applied at the Hanford Facility as a matter of good management practice. Tracking mechanisms have been in place for the on-site movement of waste at Hanford for many years. The manifest documentation is used to ensure that waste destined for further on-site management units is properly managed. As a best management practice, on-site transfers of dangerous waste meet all substantive requirements of 49 CFR Parts 100-177 even though these regulations are applicable only to off-site transport.
4. We object to the statement in Finding 3 that "On manifest #00078, the material was not properly designated and therefore not properly classed, described, marked or labelled." and the statement in Finding 8 that "the wastes on manifest #00078 were erroneously designated,..." The waste was appropriately classified for transport as flammable because the process knowledge available (MSDS Sheet and hazard rating by KEH Industrial Hygiene) indicated the presence of liquids containing dioxane (flash point 54 degrees Fahrenheit). This was a proper, conservative, prudent and reasonable determination made using the appropriate information at the appropriate time. Even if overly conservative in terms of protecting human health and the environment, no violation can be properly alleged.
5. Findings 4 & 5 pertain to the same transaction and occurrence and are duplicative and repetitious in that they both cite WAC 173-303-200. They should have been addressed together as one Finding.

6. Finding 7 does not provide any recognition of the fact that Ecology is in possession of information documenting the efforts DOE is making to resolve the conflict of laws which exists regarding statutory provisions allowing regulatory agencies access to employee training records and the prohibitions against disclosure imposed on DOE by the Privacy Act of 1974. The resolution of this issue has been discussed with representatives of Ecology and the Office of the Attorney General on numerous occasions. Ecology has received information describing the proposed revision to the general training system of records by publication of a proposed routine use in the Federal Register.
7. We have been unable to identify a basis or citation for requiring a Certificate of Completion, as is included in the October 27, 1992 letter. We will continue to document the compliance status of our facility in the documentation developed in our environmental programs. Such documentation will be kept at RL facilities and in our recordkeeping files as appropriate.

RESPONSE TO SPECIFIC ITEMS:

1. Item 1

Within forty (40) calendar days of receipt of this letter, KEH shall identify, by physical inspection and document review, the "cradle-to-grave" status of all potentially or known dangerous waste containers and all unidentified/unknown waste containers being stored at the KEH slab yard. This identification shall include points of generation, process operators, individual container numbers, original and current storage locations, accumulation dates, MSDSs, waste designations, waste codes, sample dates for undesignated or "unknown" waste, waste quantities, past and present labels and/or markings, and container conditions.

Provide a report of all findings from this investigation to Ecology within 40 calendar days of receipt of this letter.

Response:

A report of all findings from the investigation requested in this item will be transmitted to Ecology by December 31, 1992. Dangerous wastes identified in the inspection and document review will be handled and dispositioned appropriately.

Waste contained in waste containers stored in the Slab Yard will be properly designated pursuant to WAC 173-303 requirements. Significant progress has already been made in this regard. For example the drums marked with the initials K.K.K. have been sampled for regulated constituents. The sample results were received on August 14, 1992, and confirmed the contents to be solid waste that is not subject to WAC 173-303. The sample results for the 25 drums containing drilling equipment rinseate were also received recently and will be dispositioned pursuant to direction from Westinghouse Hanford Company (WHC).

We do not agree that drums containing solely solid wastes must be marked or labeled or provided with documentation concerning designation unless the contents are regulated under WAC 173-303. The adequacy of procedures will be evaluated to assure adequate process knowledge is developed and documented to support the proper designation of waste for safe handling, transportation, treatment, storage or disposal as appropriate.

2. Item 2

Within forty (40) calendar days of receipt of this letter, KEH shall provide a specific program for correcting all deficiencies identified in Item 1. This program shall identify accomplishment dates and proposed disposal locations. For all deficiencies identified a "root cause" shall be determined to aid in assessing appropriate long-term corrective actions once short-term problems are corrected. All corrective actions resulting from Ecology inspections, and the investigation required in Item 1, must be completed by January 15, 1993. Provide this all-inclusive corrective action program to Ecology within 40 calendar days of receipt of this letter.

Response:

A specific program to correct any deficiencies identified in the investigation conducted to address Item 1 will be developed. Root causes will be evaluated in the identification and development of appropriate corrective actions. The December 31, 1992 submittal will describe the plan and schedule for implementing the corrective action program.

3. Item 3

Within forty (40) calendar days of receipt of this letter, KEH shall modify their training plan to meet WAC 173-303-330(2)(a) requirements. Specifically, KEH shall add the names of the employees filling each position related to dangerous waste management at the facility.

Response:

The training plan will be evaluated and modified where necessary to meet WAC 173-303-330(2)(a) requirements. A copy of the section of the training plan pertaining to each position related to dangerous waste management at the facility will be provided in the December 31, 1992, submittal. This response is consistent with what has been agreed to in the Hanford Facility Part 8 Permit Application.

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APPENDIX B-3

NOTICE OF NONCOMPLIANCE 305-B STORAGE FACILITY

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7001 W. Clearwater, Suite 102 • Kennewick, Washington 99116 • (509) 546-2990

October 30, 1992

CERTIFIED MAIL

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NO. 11111111

Mr. John D. Wagoner, Manager
U. S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

ID Number: WA7890008967

Date and Time of Inspection:
July 16, 1992, 9:50 - 12:00 a.m.
July 23, 1992, 10:51 - 11:20 a.m.

Mr. William R. Wiley, Director
Pacific Northwest Laboratories
P.O. Box 999
Richland, WA 99352

Dear Messrs. Wagoner and Wiley:

Re: Dangerous Waste Compliance Inspection for 305-B Storage
Facility

Thank you for the assistance of Pacific Northwest Laboratories (PNL) personnel during the inspection of the 305-B storage facility on July 16, and July 23, 1992. During these inspections, my staff documented several areas of non-compliance by PNL with the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC) at the 300 Area, 305-B facility. Responsibility for corrective actions for these items of non-compliance is being directed to the operator (PNL) and verification of completion of actions is directed to the owner, the U. S. Department of Energy (USDOE-RL).

The violations documented in the 305-B storage facility inspection report identify a failure by PNL to properly manage dangerous waste. The 305-B storage facility RCRA Part B permit application has been received by Ecology and is in the review process. It is necessary for USDOE-RL and PNL to take any actions necessary to ensure these deficiencies are corrected in a timely manner to receive permit and/or meet WAC's. Violations noted include the following:

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John D. Wagoner
William R. Wiley
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October 30, 1992

Class II Violations

- o WAC 173-303-300 - General waste analysis.
Failure to sample, test and redesignate waste per subsection (4)(a).
- o WAC 173-303-350 - Contingency plan and emergency procedures.
Failure to list responsible emergency and contingency plan coordinators per subsection (3)(d) required under WAC 173-303-360 (1).
- o WAC 173-303-380 - Facility recordkeeping.
Failure to record and maintain in the operating record the location of each dangerous waste within the facility and the quantity at each location per subsection (1)(b).
- o WAC 173-303-630 - Use and management of containers.
Failure to manage condition of containers per subsection (2).
Failure to properly label containers per subsection (3).
Failure to comply with WAC storage limits equivalent with Uniform Fire Code per subsection (8)(b).

Staff is available to assist USDOE-RL and/or PNL in completing these compliance items within the time specified. Failure to correct these items may result in the issuance of an administrative order and/or penalty as authorized under RCW 70.105.095 (Hazardous Waste Management).

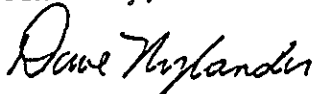
1. Within thirty (30) calendar days of receipt of this letter, PNL shall submit to Ecology a schedule to sample and designate container #13040.
2. Within thirty (30) calendar days of receipt of this letter, PNL shall provide Ecology with a list of the responsible emergency and contingency plan coordinators.
3. Within thirty (30) calendar days of receipt of this letter, PNL shall provide Ecology with an accurate inventory of waste stored within the 305-B facility using the required units of measure.

John D. Wagoner
William R. Wiley
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October 30, 1992

4. Within thirty (30) calendar days of receipt of this letter, PNL shall properly affix labels to drums and containers throughout the 305-B facility.
5. Within thirty (30) calendar days of receipt of this letter, PNL shall verify compliance with WAC storage requirements under the Uniform Fire Code.

If you have any questions or technical inquiries concerning this matter, please contact me at (509) 546-2990, or G. Thomas Tebb of my staff at (509) 546-4302. Please complete the enclosed certificate of completion and submit to this Department by December 14, 1992.

Sincerely,



Dave Nylander
Office Manager
Nuclear and Mixed Waste Management Program/Kennewick

DN:gd
Enclosures (2)

cc: Roger Stanley, Ecology
Dave Jansen, Ecology
Scott McKinney, Ecology
Jim Bauer, DOE
Kyle Webster, PNL
W. J. Bjorklund, PNL
Administrative Record

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FACT SHEET

Owner U. S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Operator Pacific Northwest Laboratories
P.O. Box 999
Richland, WA 99352

Facility/Location 305-B Storage Facility, 300 Area

Contact Glenn T. Thornton (new manager is Kyle Webster)
(509) 376-7688

Activity Compliance inspection conducted in support of 305-B
hazardous waste storage Part B permit issuance.

Background

The 305-B hazardous waste storage facility is a one-story frame and masonry building with a basement, constructed in the early 1950's. An attached two-story-high metal and concrete building was constructed in January 1978. The facility has been specially modified to provide storage of many types of dangerous wastes.

The 305-B facility has been used for dangerous waste storage since March 1989, operating under interim status. Wastes, primarily from Pacific Northwest Laboratories (PNL)-operated research facilities, are brought to the facility for consolidation either through lab packing, bulking, or simple accumulation of "truckload quantities" in preparation for recycling, treatment, or disposal. No treatment or disposal of waste is performed at the facility.

Finding #1 FAILURE TO SAMPLE, TEST AND REDESIGNATE WASTE

WAC 173-303-300 General waste analysis. (4) Analysis shall be repeated as necessary to ensure that it is accurate and current. At a minimum, analysis must be repeated: (a) When the owner or operator has been notified, or has reason to believe, that the process or operation generating the dangerous wastes has significantly changed.

A note on the MSDS for container #13040, originally containing AEROSOL OT 75% Surfactant, read "ethanol evaporated off prior to becoming waste." The waste remaining in the container is not accurately represented by the MSDS. A waste analysis has not been repeated.

Finding #2 FAILURE TO MAINTAIN CURRENT CONTINGENCY PLAN

WAC 173-303-350 Contingency plan and emergency procedures. (3)(d) A current list of names, addresses, and phone numbers (office and home) of all persons qualified to act as the emergency coordinator required under WAC 173-303-360(1).

Mr. Thornton stated 305-B is using the Emergency plan in the Part B permit application. The Part B Permit application, Section 7.2, page 703 states that, due to security requirements, names or phone numbers of personnel acting as emergency contacts are not released. When Steve asked Mr. Thornton how facility personnel knew who the emergency contacts were, he retrieved an old list from a bulletin board. The list was from the previous emergency plan, and Mr. Thornton said it was not maintained with current information.

Finding #3 FAILURE TO USE SPECIFIED UNITS OF MEASUREMENT

WAC 173-303-380 Facility recordkeeping. (1) Operating record. The owner or operator of a facility shall keep a written operating record at his facility. The following information shall be recorded . . . (b) The location of each dangerous waste within the facility and the quantity at each location. . .

The operating record failed to report accurate quantities of dangerous waste being stored in specific locations. The inspection team was informed by Mr. Thornton that such information was tracked using a computerized data base. However, the data base was inaccurate and did not provide the required information as to the location of each dangerous waste within the facility and the quantity at each location.

Finding #4 FAILURE TO PROPERLY LABEL OR MANAGE CONTAINERS

WAC 173-303-630 Use and management of containers. (2) Condition of containers. If a container holding dangerous waste is not in good condition (e.g., severe rusting, apparent structural defects) . . . the owner or operator must transfer the dangerous waste from the container to a container that is in good condition . . . (3) Identification of containers. The owner or operator must label containers in a manner which adequately identifies the major risk(s) associated with the contents of the containers for employees, emergency response personnel and the public . . . The owner or operator must affix labels upon transfer of dangerous wastes from one container to another. The owner or operator must destroy or otherwise remove labels from the emptied container . . . (8) Special requirements for ignitable or reactive waste. . . (b) Special requirements for ignitable or reactive waste. . . (b) The owner or operator shall design, operate, and maintain ignitable waste and reactive waste . . . container storage in a manner equivalent with the Uniform Fire Code.

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A dented container (#13040) was observed in the non/ORM/state-only storage area of the nonradioactive high bay. Mr. Thornton reported that the container was dented when it arrived at 305-B in 1990. The WAC requires containers not in good condition to be transferred from the damaged container into one of good condition.

On the date of our inspection, drums in the mixed waste storage area (17 contained waste and approximately 8 were empty) and 1 container in the radioactive flammable liquid storage area were not properly marked/labeled. Waste management personnel did not affix labels or apply markings upon transfer of dangerous wastes from one container to another, nor did they destroy or otherwise remove labels from the emptied containers. Instead, all information dictating the contents of the container, unique container number, and point of origin were on individual log sheets (CDRR) laying on top of the containers, and were not secured.

During our inspection of the radioactive mixed waste storage area (cell #7) located in the basement, Laura Russell commented on an 8 gallon container in the secondary containment area used for PCB's. Mr. Selby stated that it was labeled wrong and he removed the hazardous waste sticker as we stood there. Pictures were taken before and after the removal of the dangerous waste label.

When Mr. Selby opened the flammable radioactive mixed waste storage containment area (cell #9), Steve Moore noticed that a drum in the doorway was marked only with a flammable sticker and stenciled with 325/300 on the side. Mr. Selby immediately took a black felt tip marker and began to write on its lid. Pictures were also taken while he was writing.

During routine inspections by PNL personnel, Drum Action Sheets are filled out and placed on top of drums needing action (e.g., labels missing, etc.). However, the Drum Action Sheets are not dated, and there is no way of knowing how long the action has been required.

The Uniform Fire Code (UFC) storage requirements were exceeded from January through April, 1992. Waste acceptance at 305-B, in lieu of exceeding the UFC requirements, was a known and deliberate act. In Glenn Thornton's memo dated July 30, 1992, he stated, "we chose to [sic] above UFC limits due to contracting difficulties which precluded off-site movement of flammable liquid wastes. This forced us to make a choice between non-compliance with 90 day storage limits in some Battelle laboratories or temporary non-compliance with UFC limits at 305-B." Ecology was not informed at the time of PNL's decision to violate WAC storage requirements.

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INVENTORY BY CELL

Cell: 1C

ITEM #	CELL	WASTE DESCRIPTION	DRUM #	VOLUME KGS
10921	1C	HYDROCHLORIC ACID		2.2676 kgs
10922	1C	SULFURIC ACID		2.0408 kgs
11320	1C	HYDROFLUORIC ACID		0.1000 kgs
11656	1C	HYDROFLUORIC ACID		0.0500 kgs
11995	1C	NITRIC ACID		0.2500 kgs
12773	1C	MERCURY STANDARD		0.2500 kgs
12774	1C	MERCURY STANDARD		0.1000 kgs
12775	1C	MERCURY STANDARD		0.2500 kgs
13537	1C	NITRIC ACID	SEQ-010	0.1000 kgs
13291	1C	AQUEOUS SOLUTION WITH .3% MERCURY FROM LAB		4.0000 kgs
14362	1C	MERCURIC CHLORIDE .69%, WATER 99.31% SOLUTION FROM LAB		20.0000 kgs
15243	1C	NITRIC ACID 10%, MERCURY STANDARD 1% AND WATER 89% SOLUTION FROM LAB		0.2500 kgs
17475	1C	SODIUM FLUORIDE 7.2%, NITRIC ACID 10.7%, NICKEL FLUORIDE .3%, WATER 81.8% SOLUTION FROM LAB		8.9200 kgs
17484	1C	ALUMINUM NITRATE .2%, SODIUM FLUORIDE .9%, ZIRCONYL NITRATE 2.6%, BORIC ACID .1%, HYDROCHLORIC ACID		12.1800 kgs
17513	1C	SULFURIC ACID 25%, CYANIDE .01%, WATER 74.99% SOLUTION FROM LAB		0.5000 kgs
17492	1C	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB		19.0000 kgs
17628	1C	CHROMIUM 9.8 ppm, SELENIUM 2.2 ppm, CADMIUM 3.1 ppm, MERCURY 1.6 ppm, LEAD 15.6 ppm, NITRIC ACID 1%		1.0000 kgs
17797	1C	MERCURIC CHLORIDE .41%, MERCURIC NITRATE .48%, NITRIC ACID .25%, POTASSIUM PERSULFATE 1%, WATER 97.		2.0000 kgs
17871	1C	NITRIC ACID 5%, WATER 95% SOLUTION FROM AB		6.0000 kgs
18247	1C	SULFURIC ACID 96.5%, WATER 35% FROM LAB		2.5000 kgs

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INVENTORY BY CELL

Cell: 1C

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
18320	1C	NITRIC ACID 9.3%, URINE 30%, ALUMINUM NITRATE .2%, WATER 60.8%, SOLUTION FROM LAB		2.5000 kgs
18148	1C	SILVER NITRATE .05%, MERCURIC CHLORIDE 8.2%, MERCURIC NITRATE 9.6%, POTASSIUM PERSULFATE 20%, NITRI		10.0000 kgs
18200	1C	ANTIMONY TRICHLORIDE FROM LAB		0.1080 kgs
18308	1C	ACETIC ACID GLACIAL 99.55, WATER .5% SOLUTION FROM LAB		2.0000 kgs
18309	1C	HYDROFLUORIC ACID 48%, WATER 52% SOLUTION FROM LAB		3.8000 kgs
18310	1C	HYDROFLUORIC ACID 48%, WATER 52% SOLUTION FROM LAB		3.8000 kgs
18311	1C	HYDROFLUORIC ACID 48%, WATER 52% SOLUTION FROM LAB		3.8000 kgs
18312	1C	PHOSPHORIC ACID (CONCENTRATED), WATER 15% SOLUTION FROM LAB		1.0000 kgs
18317	1C	SULFURIC ACID (CONCENTRATED) 96%, WATER 4% SOLUTION FROM LAB		4.0000 kgs
18405	1C	CHROMIUM TRIOXIDE 63%, WATER 37% SOLUTION FROM LAB		0.0250 kgs
18406	1C	CHROMIUM TRIOXIDE 63%, WATER 37% SOLUTION FROM LAB		0.0250 kgs
18409	1C	HYDROFLUORIC ACID 50%, WATER 50% SOLUTION FROM LAB		0.0500 kgs
18410	1C	HYDROFLUORIC ACID 50%, WATER 50% SOLUTION FROM LAB		1.5000 kgs
18411	1C	HYDROFLUORIC ACID 50%, WATER 50% SOLUTION FROM LAB		2.0000 kgs
18412	1C	HYDROFLUORIC ACID 50%, ZIRCONIUM FLUORIDE .02%, WATER 49.98% SOLUTION FROM LAB		0.1000 kgs
18434	1C	SULFURIC ACID 15%, PHOSPHORIC ACID 4.4%, HYDROFLUORIC ACID 1.4%, VANADIUM .06%, WATER 79% SOLUTION		20.0000 kgs

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INVENTORY BY CELL

Cell: 1C

<u>ITEM#</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM#</u>	<u>VOLUME, KGS</u>
18435	1C	SULFURIC ACID 6.7%, HYDROFLUORIC ACID 1.8%, METHANOL 2.6%, BORIC ACID 7.2%, ETHANOL 1.2%, PHOSPHORI		20.0000 kgs
18446	1C	HYDROXYLAMINE HYDROCHLORIDE 1.7%, HYDROCHLORIC ACID 8.45, WATER 90% SOLUTION FROM LAB		0.5000 kgs
18496	1C	HYDROCHLORIC ACID 40.3%, HYDROFLUORIC ACID .1%, WATER 59.7% SOLUTION FROM LAB		2.5000 kgs
18497	1C	HYDROCHLORIC ACID 21%, AMMONIUM CHLORIDE .04%, SODIUM CHLORIDE .05%, HYDROFLUORIC ACID <.01%, WATE		2.5000 kgs
18498	1C	NITRIC ACID 22.7%, WATER 77.2% SOLUTION FROM LAB		2.5000 kgs
18499	1C	OXALIC ACID 1.1%, AMMONIUM HYDROXIDE .78%, IRON NITRATE .01%, NITRIC ACID 16.4%, SODIUM HYDROXIDE 9		2.7000 kgs
18500	1C	CONCENTRATED NITRIC ACID 19.7%, CONCENTRATED HYDROCHLORIC ACID 9.3%, SULFURIC ACID .007%, WATER 68		4.0400 kgs
18508	1C	HYDROCHLORIC ACID 8%, WATER 92% SOLUTION FROM LAB		4.0000 kgs
18509	1C	PERCHLORIC ACID 2%, HYDROCHLORIC ACID 3%, WATER 95% SOLUTION FROM LAB		1.0000 kgs
18510	1C	HYDROCHLORIC ACID 17%, NITRIC ACID 21%, WATER 23% SOLUTION FROM LAB		4.0000 kgs
18511	1C	HYDROCHLORIC ACID 6%, MAGNESIUM CHLORIDE 2%, SAFRAMIN O INDICATOR 1%, WATER 91% SOLUTION FROM LAB		0.1500 kgs
18513	1C	HYDROCHLORIC ACID 1. M 3.5%, GOLD .05%, WATER 96.45 % SOLUTION FROM LAB		0.2500 kgs
18524	1C	NITRIC ACID 3%, WATER 97% SOLUTION FROM LAB		10.0000 kgs
18549	1C	CONCENTRATED POTASSIUM HYDROXIDE 1.6%, CONCENTRATED HYDROCHLORIC ACID 6.1%, CONCENTRATED NITRIC ACI		4.3000 kgs
18642	1C	ZINC CHLORIDE 67%, WATER 33% SOLUTION FROM LAB		0.4500 kgs
18652	1C	FUMING NITRIC ACID FROM LAB		0.2500 kgs

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INVENTORY BY CELL

Cell: 1C

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18653	1C	NITRIC ACID .9%, WATER 99.1% SOLUTION FROM LAB		0.9500 kgs
18655	1C	MERCURY .001%, NITRIC ACID 6.3%, WATER 93.7% SOLUTION FROM LAB		0.9500 kgs
18669	1C	HYDROCHLORIC ACID .37%, WATER 99.63% SOLUTION FROM LAB		0.2000 kgs
18689	1C	SULFURIC ACID 10%, WATER 90% SOLUTION FROM LAB		0.1200 kgs
18730	1C	SULFURIC ACID FROM LAB		0.5000 kgs
18753	1C	SULFURIC ACID >15%, WATER <85% SOLUTION FROM LAB		0.5300 kgs
16558	1C	MERCURY, SULFURIC ACID, SODIUM HYDROXIDE FROM LAB • LABPACK MRC-012	MRC-012	21.3152 kgs
17085	1C	PHOSPHORIC ACID, MERCURIC NITRATE, CADMIUM, ACETONE, CHROMIUM FROM LAB • LABPACK MRC-022	MRC-022	60.0000 kgs
			Total	280.1716 kgs

9 3 1 2 9 0 3 0 1 1 1
INVENTORY BY CELL

Cell: 1D

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
9094	1D	DICHLOROACETIC ACID		0.2000 kgs
9964	1D	TRICHLOROACETIC ACID		1.0000 kgs
9965	1D	FORMIC ACID		0.5000 kgs
11121	1D	TRICHLOROACETIC ACID		0.3000 kgs
17271	1D	POTASSIUM CHLORIDE 24%, CITRIC ACID 2.5%, IRON .8%, WATER 72.7% SOLUTION FROM LAB		12.4800 kgs
17275	1D	FILTER MATERIAL 80%, POTASSIUM CHLORIDE 17.6%, CITRIC ACID 1.8%, IRON .4%, CHROMIUM .1%, NICKEL .1%		5.1300 kgs
17276	1D	FILTER MATERIAL 80%, POTASSIUM CHLORIDE 17.6%, CITRIC ACID 1.8%, IRON .4%, CHROMIUM .1%, NICKEL .1%		5.1300 kgs
17277	1D	FILTER MATERIAL 80%, POTASSIUM CHLORIDE 17.6%, CITRIC ACID 1.8%, IRON .4%, CHROMIUM .1%, NICKEL .1%		5.1300 kgs
17278	1D	FILTER MATERIAL 80%, POTASSIUM CHLORIDE 17.6%, CITRIC ACID 1.8%, IRON .4%, CHROMIUM .1%, NICKEL .1%		5.1300 kgs
17279	1D	FILTER MATERIAL 80%, POTASSIUM CHLORIDE 17.6%, CITRIC ACID 1.8%, IRON .4%, CHROMIUM .1%, NICKEL .1%		5.1300 kgs
17280	1D	FILTER MATERIAL 80%, POTASSIUM CHLORIDE 17.6%, CITRIC ACID 1.8%, IRON .4%, CHROMIUM .1%, NICKEL .1%		5.1300 kgs
17281	1D	FILTER MATERIAL 80%, POTASSIUM CHLORIDE 17.6%, CITRIC ACID 1.8%, IRON .4%, CHROMIUM .1%, NICKEL .1%		5.1300 kgs
17282	1D	FILTER MATERIAL 80%, POTASSIUM CHLORIDE 17.6%, CITRIC ACID 1.8%, IRON .4%, CHROMIUM .1%, NICKEL .1%		5.1300 kgs
17758	1D	OXALIC ACID FROM LAB		0.5000 kgs
17934	1D	TRICHLOROACETIC ACID FROM LAB		3.0000 kgs
18131	1D	CITRIC ACID FROM LAB		0.4540 kgs
18244	1D	CITRIC ACID FROM LAB		0.4535 kgs
18246	1D	ACETIC ACID FROM LAB		2.5000 kgs
18276	1D	OXALIC ACID FROM LAB		0.4535 kgs
18201	1D	TRICHLOROACETIC ACID FROM LAB		0.2400 kgs
18202	1D	TRICHLOROACETIC ACID FROM LAB		0.2400 kgs
18713	1D	ACETIC ANHYDRIDE FROM LAB		0.0250 kgs

9 3 1 3 9 0 3 2 1 1 2

INVENTORY BY CELL

Cell: 1D

ITEM# CELL WASTE DESCRIPTION

DRUM# VOLUME KGS
Total 63.3860 kgs

9 3 1 2 9 0 3 0 1 1 3
INVENTORY BY CELL

Cell: 1E

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
11468	1E	POTASSIUM PERSULFATE		0.4000 kgs
			Total	0.4000 kgs

9 3 1 1 9 0 3 7 1 1 4

INVENTORY BY CELL

Cell: 2

REVIEW COPY
(SUBJECT TO CHANGE)
DATE: 11/25/92

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
17885	2	MERCURIC IODIDE, CARBOLIC ACID FROM LAB • MRC-189 LABPACK	MRC-189	1.1000 kgs
			Total	1.1000 kgs

9 3 1 2 9 0 3 0 1 1 5

INVENTORY BY CELL

Cell: 2A

<u>ITEM#</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
9055	2A	SODIUM CYANIDE		0.2000 kgs
9056	2A	SODIUM META BISULFITE		0.4000 kgs
9779	2A	POTASSIUM CYANIDE		0.4535 kgs
10369	2A	ANILINE		1.0000 kgs
10832	2A	SODIUM CYANIDE		0.0500 kgs
10847	2A	AMMONIUM THIOCYANIDE		2.0000 kgs
11102	2A	SEMICARBAZIDE HYDROCHLORIDE		0.2000 kgs
11133	2A	SAFROLE		0.1250 kgs
11161	2A	1-AMINONAPHTHALENE		0.0100 kgs
11208	2A	ARSENIC REFERENCE SOLUTION		0.4730 kgs
11210	2A	VANADIUM PENTOXIDE		4.0000 kgs
11214	2A	1-AMINONAPHTHALENE		0.0250 kgs
11225	2A	METHYLMERCURIC CHLORIDE		0.0500 kgs
11235	2A	P-TOLUIDINE		0.1000 kgs
11273	2A	ANILINE		0.0140 kgs
11276	2A	PHENOL		0.6000 kgs
11363	2A	SODIUM AZIDE		0.0050 kgs
11435	2A	COPPER (II) CYANIDE		0.2500 kgs
11464	2A	ARSENIC PENTOXIDE		0.2000 kgs
11467	2A	POTASSIUM COBALTICYANIDE		0.6000 kgs
11490	2A	POTASSIUM FERROCYANIDE		0.1000 kgs
11522	2A	SODIUM META-BISULFITE		0.0750 kgs
11527	2A	POTASSIUM COBALTICYANIDE		0.3500 kgs
11553	2A	ARSENIOUS ACID		0.1000 kgs
11565	2A	ARSENIC TRIOXIDE		0.0500 kgs
11581	2A	SILVER ACTIVATED ZINC SULFIDE ZnS(Ag) FROM LAB		0.0400 kgs
11586	2A	CUPRIC SULFIDE		1.5000 kgs
11604	2A	SODIUM AZIDE		0.5000 kgs

9 3 1 2 9 0 3 0 1 1 6

INVENTORY BY CELL

Cell: 2A

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
12571	2A	MERCURY IODIDE	386L	0.1000 kgs
12572	2A	CHEMICAL MIXTURE	386L	2.0000 kgs
12574	2A	CHEMICAL MIXTURE	386L	0.5000 kgs
12573	2A	CHEMICAL MIXTURE	386L	1.5000 kgs
12576	2A	MERCURIC CHLORIDE .25%, MERCURIC SODIUM CHLORIDE .25%, WATER 99.5% SOLUTION FROM LAB	386L	0.6000 kgs
12577	2A	TCM SOLUTION	386L	0.9000 kgs
12939	2A	MERCURY CHLORIDE	386L	0.8000 kgs
14060	2A	SODIUM AZIDE #S-227 FROM LAB		0.2300 kgs
16504	2A	SPENT MIXTURE OF METHANOL, PHENOL, CHLOROFORM, SODIUM HYDROXIDE FROM LAB • LABPACK BNW-841	BNW-841	6.5000 kgs
17081	2A	2,4,5, TRICHLOROPHENOL FROM LAB • LABPACK SIG-114	SIG-114	0.0050 kgs
15101	2A	MERCURIC CHLORIDE .1% SOLUTION FROM LAB	386L	0.5000 kgs
17542	2A	PHENOL 50%, WATER 50% SOLUTION FROM LAB		1.0000 kgs
17761	2A	MERCURIC IODIDE FROM LAB		0.5000 kgs
17940	2A	PHENOL REAGENT FROM LAB		1.0000 kgs
17951	2A	PHENOL REAGENT FROM LAB		0.5000 kgs
17965	2A	MERCUROUS SULFATE FROM LAB		0.1000 kgs
17975	2A	PHENOL 90%, WATER 10% SOLUTION FROM LAB		4.0000 kgs
17976	2A	PHENOL 90%, WATER 10% SOLUTION FROM LAB		4.0000 kgs

9 3 1 2 9 0 3 0 1 1 7
INVENTORY BY CELL

Cell: 2A

<u>ITEM#</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM#</u>	<u>VOLUME KGS</u>
17977	2A	PHENOL 90%, WATER 10% SOLUTION FROM LAB		4.0000 kgs
17978	2A	PHENOL 90%, WATER 10% SOLUTION FROM LAB		4.0000 kgs
17979	2A	PHENOL FROM LAB		2.0000 kgs
17981	2A	PHENOL FROM LAB		5.0000 kgs
17913	2A	PHENOL 30%, CHLOROFORM pH 8 30%, WATER 35%, ISOOMPYL ALCOHOL FROM LAB		2.5000 kgs
18207	2A	PURIFIED HYDROCARBON NON RADIO ACTIVE 100% - CONTAINING PCB 7.5 ppm, TOTAL ORGAIN HALIDE 4 ppm, ARS		9.0000 kgs
18664	2A	NITRO BENZENE FROM LAB		0.2000 kgs
17686	2A	BARIUM NITRATE, SODIUM CHROMATE, SODIUM SELENITE, CHLOROFORM FROM LAB • MRC-119 LABPACK	MRC-119L	18.0000 kgs
			Total	82.9055 kgs

9 3 1 2 9 0 3 1 1 8

INVENTORY BY CELL

Cell: 2B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
17755	2B	BALLASTS - PCB >500 ppm (SMALL) FROM PLANT MAINTENANCE	17755	109.0000 kgs
18401	2B	BALLASTS - LEAKING PCB >500 ppm (SMALL) FROM LAB	18401	100.0000 kgs
			Total	209.0000 kgs

9 3 1 1 9 0 3 1 1 9
INVENTORY BY CELL

Cell: 2C

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
8958	2C	POTASSIUM BISULFATE		1.5000 kgs
9624	2C	SODIUM BISULFATE		0.5000 kgs
9649	2C	SODIUM META-BISULFATE		0.5000 kgs
9672	2C	SODIUM FLUORIDE		0.0050 kgs
9987	2C	FLUORANTHENE		0.1000 kgs
10989	2C	NAPHTHALENE		0.0050 kgs
12349	2C	MERCUROUS CHLORIDE		0.1250 kgs
11191	2C	SODIUM FLUORIDE		12.0000 kgs
11244	2C	MOLYBDENUM DISULFIDE		0.1000 kgs
11274	2C	MERCUROUS CHLORIDE		0.1000 kgs
11429	2C	ACRYLAMIDE		0.1000 kgs
11433	2C	STANNOUS CHLORIDE		2.4000 kgs
12740	2C	ISV CONDENSATE		12.0000 kgs
13259	2C	FORMALDEHYDE		0.5000 kgs
14223	2C	SODIUM BISULFATE FROM LAB		1.3605 kgs
13976	2C	ALUMINUM NITRIDE -200 MESH FROM LAB		0.5000 kgs
13977	2C	ALUMINUM NITRIDE -200 MESH FROM LAB		0.6000 kgs
14296	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14297	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14298	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14299	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14300	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14301	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14302	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14303	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14304	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14305	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14306	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs

9 3 1 2 9 0 3 1 2 0

INVENTORY BY CELL

Cell: 2C

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
14307	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14309	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14308	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14310	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14311	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14312	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14313	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14314	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
14315	2C	SODIUM FLUORIDE 100% FROM LAB		0.4535 kgs
17693	2C	POTASSIUM NITRATE, AMMONIUM PERSULFATE, SODIUM PERCHLORATE FROM LAB • MRC-153	MRC-153	3.7000 kgs
Total				45.1655 kgs

9 3 1 2 9 0 3 0 1 2 1
INVENTORY BY CELL

Cell: 2D

ITEM #	CELL	WASTE DESCRIPTION	DRUM #	VOLUME KGS
9137	2D	FERRIC CHLORIDE		1.5000 kgs
8967	2D	SODIUM DICHROMATE		0.4540 kgs
9613	2D	SODIUM DICHROMATE		0.6500 kgs
11129	2D	FERRIC CHLORIDE		0.5000 kgs
11308	2D	FERRIC CHLORIDE		0.3500 kgs
15979	2D	FORMALIN 1% & WATER 99% SOLUTION FROM LAB		15.0000 kgs
17467	2D	FERROCYANIDE WASTE CONTAINING SODIUM NICKEL FERROCYANIDE 3.9%, (SULFATE, NITRATE, NITRITE, PHOSPHAT		3.5000 kgs
17446	2D	SODIUM METAL - BISULFITE FROM LAB		0.7200 kgs
17524	2D	MERCURY 100% FROM LAB		0.8760 kgs
17525	2D	THERMOMETER - BROKEN MERCURY		0.2500 kgs
17526	2D	THERMOMETER - BROKEN MERCURY		0.2500 kgs
17527	2D	THERMOMETER - MERCURY(NOT BROKEN)		0.1000 kgs
17528	2D	THERMOMETER - BROKEN MERCURY		0.1000 kgs
17529	2D	THERMOMETER - BROKEN MERCURY		0.1000 kgs
17530	2D	THERMOMETER - BROKEN MERCURY		0.1000 kgs
17531	2D	THERMOMETER - BROKEN MERCURY		0.1000 kgs
17532	2D	THERMOMETER - BROKEN MERCURY		0.1000 kgs
17533	2D	THERMOMETER - BROKEN MERCURY		0.1000 kgs
17534	2D	THERMOMETER - BROKEN MERCURY		0.1000 kgs

9 3 1 2 9 0 3 1 1 2 2

INVENTORY BY CELL

Cell: 2D

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
17535	2D	THERMOMETER - BROKEN MERCURY		0.1000 kgs
17499	2D	THERMOMETER - MERCURY (NOT BROKEN)		0.1000 kgs
17500	2D	THERMOMETER - MERCURY (NOT BROKEN)		0.1000 kgs
17501	2D	THERMOMETER - MERCURY (NOT BROKEN)		0.1000 kgs
17502	2D	THERMOMETER - MERCURY (NOT BROKEN)		0.1000 kgs
17503	2D	THERMOMETER - MERCURY (NOT BROKEN)		0.1000 kgs
17504	2D	THERMOMETER - MERCURY (NOT BROKEN)		0.1000 kgs
17505	2D	THERMOMETER - MERCURY (NOT BROKEN)		0.1000 kgs
17506	2D	THERMOMETER - MERCURY (NOT BROKEN)		0.1000 kgs
17507	2D	THERMOMETER - MERCURY (NOT BROKEN)		0.1000 kgs
17508	2D	THERMOMETER - MERCURY (NOT BROKEN)		0.1000 kgs
17509	2D	FORMALDEHYDE 10%, SODIUM PHOSPHATE 1%, WATER 89% SOLUTION FROM LAB		19.0000 kgs
17581	2D	FORMALDEHYDE >1%, WATER 99.9% SOLUTION FROM LAB		8.0000 kgs
17681	2D	MOBILE D7E 24 HYD CONTAMINATED W/10.9 ppm PCB AND 4.7 ppm CADMIUM FROM LAB		0.0030 kgs
17667	2D	PAPER TOWELS USED TO CLEAN UP SPILL CONTAMINATED WITH >5% ACETONITRILE, METHANOL, DICHLOROMETHANE,		3.8000 kgs
17641	2D	FORMALDEHYDE 4%, WATER 96% SOLUTION FROM LAB		1.0000 kgs

9 3 1 1 9 0 3 1 1 2 3
INVENTORY BY CELL

Cell: 2D

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
17709	2D	SULFURIC ACID .63%, SODIUM HYDROXIDE .00093%, METHANOL .833%, DIONIZED WATER 98.5% SOLUTION FROM LA		30.0000 kgs
17789	2D	STANNOUS CHLORIDE FROM LAB		0.4540 kgs
17790	2D	STANNOUS CHLORIDE FROM LAB		0.4540 kgs
17791	2D	POTASSIUM DICHROMATE FROM LAB		0.1000 kgs
17792	2D	POTASSIUM DICHROMATE FROM LAB		0.1000 kgs
17793	2D	POTASSIUM DICHROMATE FROM LAB		0.1000 kgs
17825	2D	MERCURY THERMOMETER (NOT BROKEN) FROM LAB		0.0050 kgs
17826	2D	MERCURY THERMOMETER (BROKEN) FROM LAB		0.0050 kgs
17827	2D	MERCURY THERMOMETER (NOT BROKEN) FROM LAB		0.0100 kgs
17828	2D	MERCURY THERMOMETER (NOT BROKEN) FROM LAB		0.0050 kgs
17829	2D	MERCURY THERMOMETER (NOT BROKEN) FROM LAB		0.0050 kgs
17830	2D	MERCURY METALLIC		0.0280 kgs
17824	2D	MERCURY THERMOMETER (BROKEN) FROM LAB		0.0050 kgs
17928	2D	FERRIC CHLORIDE FROM LAB		1.0000 kgs
18229	2D	CALCIUM OXIDE LOW FLUORIDE FROM LAB		0.1000 kgs
18267	2D	SODIUM DICHROMATE FROM LAB		0.4535 kgs
18268	2D	STANNOUS CHLORIDE DIHYDRATE FROM LAB		0.4535 kgs
18159	2D	THERMOMETERS - 10 BROKEN WITH MERCURY FROM LAB		1.0000 kgs

INVENTORY BY CELL

Cell: 2D

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
18160	2D	THERMOMETERS - 47 WITH MERCURY FROM LAB		1.0000 kgs
18161	2D	THERMOREGULATORS - WITH MERCURY FROM LAB		1.0000 kgs
18162	2D	THERMOREGULATORS - WITH MERCURY FROM LAB		1.0000 kgs
18163	2D	MERCURY SPILL CLEANUP MATERIAL - MERCURY, BROKEN THERMOMETER, RAGS FROM LAB		1.0000 kgs
18315	2D	SELENIUM DIOXIDE FROM LAB		0.0100 kgs
18316	2D	SELENIUM METAL FROM LAB		0.0100 kgs
18551	2D	STANNOUS CHLORIDE FROM LAB		0.5000 kgs
18596	2D	METALLIC MERCURY WASTE FROM PLANT MAINTENANCE		2.0000 kgs
18654	2D	MERCURY .1%, WATER 99.9% SOLUTION FROM LAB		0.9500 kgs
18693	2D	POTASSIUM DICHROMATE FROM LAB		0.0300 kgs
18694	2D	POTASSIUM DICHROMATE FROM LAB		0.0300 kgs
18695	2D	POTASSIUM DICHROMATE FROM LAB		0.0300 kgs
18696	2D	POTASSIUM DICHROMATE FROM LAB		0.0300 kgs
18697	2D	POTASSIUM DICHROMATE FROM LAB		0.0300 kgs
18698	2D	POTASSIUM DICHROMATE FROM LAB		0.0300 kgs
18699	2D	POTASSIUM DICHROMATE FROM LAB		0.0300 kgs
18700	2D	POTASSIUM DICHROMATE FROM LAB		0.0300 kgs

9 3 1 5 9 0 3 7 1 2 5
INVENTORY BY CELL

Cell: 2D

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18701	2D	POTASSIUM DICHROMATE FROM LAB		0.0300 kgs
18702	2D	POTASSIUM DICHROMATE FROM LAB		0.0300 kgs
18723	2D	SODIUM BISULFITE FROM LAB		0.5000 kgs
18740	2D	THERMOMETER - 2 BROKEN WITH MERCURY FROM LAB		4.0000 kgs
18741	2D	SPILL KIT CONTAMINATED WITH MERCURY FROM LAB		0.0000 kgs
Total				104.3010 kgs

9 3 1 2 9 0 3 7 1 2 6

INVENTORY BY CELL

Cell: 2E

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
13790	2E	MIXED WASTE SHAVINGS FROM PLANT MAINTENANCE		4.5351 kgs
13946	2E	AQUEOUS SOLUTION WITH 0.5% SILVER NITRATE FROM LAB		2.3000 kgs
16755	2E	BERYLLIUM METAL 100% FROM LAB		0.5000 kgs
17385	2E	LEAD TELLURIDE FROM LAB		2.1800 kgs
17386	2E	LEAD TELLURIDE FROM LAB		2.1800 kgs
17387	2E	LEAD TELLURIDE FROM LAB		2.1800 kgs
17552	2E	SILVER CHLORIDE FROM LAB		0.0400 kgs
17553	2E	CADMIUM METAL FROM LAB		0.0170 kgs
17556	2E	SELENIUM METAL FROM LAB		0.0010 kgs
17559	2E	SILVER CHLORIDE FROM LAB		0.0100 kgs
17562	2E	CADMIUM METAL FROM LAB		0.1000 kgs
17574	2E	LEAD ROD FROM LAB		0.0200 kgs
17722	2E	CONTAINING MINERAL SPIRITS, ZINC CHROMATE, CHROMIC ACID AND CHROME FROM LAB		2.3000 kgs
17708	2E	CLEANING CLOTHES CONTAMINATED WITH <.1% ACETONE FROM LAB		0.7000 kgs
17992	2E	VINYL CHLORIDE .042%, 1,1,1-TRICHLOROETHANE .061%, 1,2-DICHLOROPROPANE .1%, ACETONE .012%, WATER 99		0.0250 kgs
17993	2E	VINYL CHLORIDE .042%, 1,1,1-TRICHLOROETHANE .061%, 1,2-DICHLOROPROPANE .1%, ACETONE .012%, WATER 99		0.0250 kgs
17994	2E	VINYL CHLORIDE .042%, 1,1,1-TRICHLOROETHANE .061%, 1,2-DICHLOROPROPANE .1%, ACETONE .012%, WATER 99		0.0250 kgs
17995	2E	VINYL CHLORIDE .042%, 1,1,1-TRICHLOROETHANE .061%, 1,2-DICHLOROPROPANE .1%, ACETONE .012%, WATER 99		0.0250 kgs
17996	2E	VINYL CHLORIDE .042%, 1,1,1-TRICHLOROETHANE .061%, 1,2-DICHLOROPROPANE .1%, ACETONE .012%, WATER 99		0.0250 kgs
18049	2E	LEAD OXIDE 99.99%, BERYLLIUM .1% FROM LAB		0.0001 kgs

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INVENTORY BY CELL

Cell: 2E

ITEM #	CELL	WASTE DESCRIPTION	DRUM #	VOLUME, KGS
18273	2E	MOLYDIC ACID 85%, AMMONIUM MOLYBDATE 15% FROM LAB		0.4535 kgs
18211	2E	LEAD OXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
17894	2E	LEAD SCRAPS FROM PLANT MAINTENANCE		3.5000 kgs
18157	2E	MECHANICAL PUMP OIL - CONTAMINATED WITH CADMIUM <1 ppm FROM LAB		3.8000 kgs
18209	2E	SPILL CLEAN UP - CONTAINING ABSORBENT 95%, CHROMIUM TRIOXIDE .02% FROM LAB		10.0000 kgs
18146	2E	PYRIDINE .1%, BARBITURIC ACID .1%, SODIUM PHOSPHATE .1%, CYANIDE 100 PARTS/BILLION, WATER 98% SOLUT		1.0000 kgs
18203	2E	LEAD MONOXIDE FROM LAB		1.0750 kgs
18407	2E	SILVER NITRATE 3%, WATER 97% SOLUTION FROM LAB		0.0250 kgs
18423	2E	PAPER, RUBBER, GLASS, PLASTIC 80%, SAND 13.6%, DRIRITE .2%, KADLIN 2.7%, NAPHTHALENE 1.8%, FURFURAL		1.1000 kgs
18555	2E	SILVER METAL FROM LAB		0.1200 kgs
18556	2E	SILVER CHLORIDE FROM LAB		0.0500 kgs
18600	2E	LEAD TURNINGS/FINES WASTE FROM PLANT MAINTENANCE		4.0000 kgs
18505	2E	CADMIUM METAL FROM LAB		0.0600 kgs
18651	2E	SILVER 400 ppm IN WATER		0.0900 kgs
18672	2E	SILVER (POWDER) 99.9%, GERMANIUM .0001% SOLUTION FROM LAB		0.0540 kgs
18747	2E	WATER >95%, POTASSIUM DICHROMATE <5% SOLUTION FROM LAB		0.4800 kgs
18752	2E	WATER >98%, SILVER NITRATE <2% SOLUTION FROM LAB		0.4800 kgs
17614	2E	BARIUM NITRATE, METHYLENE CHLORIDE, ACETONE, TOLUENE, CHLOROFORM, SILVER, CADMIUM, PYRIDINIUM CHROM	MRC-144	38.7000 kgs

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INVENTORY BY CELL

Cell: 2E

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
18867	2E	METHANOL 5%, WATER 94%, TWEEN <.1%, TRI-FLURALIN <.01%		20.0000 kgs
18868	2E	MERCURY .0106%, CHROMIUM .0106%, TOLUENE .1288%, ETHYL ACETATE .0002%, WATER 99.8508%		4.7000 kgs
			Total	106.8758 kgs

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INVENTORY BY CELL
 Cell: 3
 (SUBJECT TO CHANGE)
 DATE: 11/25/92

ITEM #	CELL	WASTE DESCRIPTION	DRUM #	VOLUME, KGS
11994	3	OAKITE LSD		36.3000 kgs
12707	3	TURCO 4502	12707	1.0000 kgs
13773	3	BATTERIES - ALKALINE FROM PLANT MAINTENANCE		19.8000 kgs
13801	3	BATTERIES - CARBON ZINC FROM PLANT MAINTENANCE	13801	13.7000 kgs
17123	3	VACUUM PUMP OIL FROM LAB • LABPACK SEQ-117	SEQ-117	12.7000 kgs
17514	3	SODIUM NITRATE 21.5%, SODIUM NITRITE 17.5%, SODIUM HYDROXIDE 9.5%, SODIUM ALUMINATE 14%, AND OTHER		24.5000 kgs
18205	3	CAPACITORS - WITH PYRANOL OIL (ASKAREL) IN SEALED UNITS FROM LAB		27.5000 kgs
18206	3	CAPACITORS - WITH PYRANOL OIL (ASKAREL) IN SEALED UNITS FROM LAB		27.9000 kgs
18418	3	JP-4 JET FUEL .5%, POTASSIUM NITRATE .01%, POTASSIUM PHOSPHATE DIBASIC .001%, TINKER SOIL WITH SILI	18418	58.0000 kgs
18603	3	PROPYLENE GLYCOL WASTE FROM PLANT MAINTENANCE		44.5000 kgs
		Total		265.9000 kgs

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INVENTORY BY CELL

Cell: 3A

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
10083	3A	BATTERIES - MERCURY		5.0000 kgs
10620	3A	BATTERIES - NICKEL CADMIUM		1.0000 kgs
10624	3A	BATTERIES - MERCURY		4.0000 kgs
10707	3A	HYDRAZINE		7.5000 kgs
11858	3A	BATTERIES - ALKALINE		0.3000 kgs
11626	3A	KODAK TETRAPROPYLAMMONIUM HYDROXIDE		0.5000 kgs
12031	3A	BATTERIES - ALKALINE		0.4000 kgs
12662	3A	BATTERIES - MERCURY		4.5000 kgs
12663	3A	BATTERIES - NICKEL CADMIUM		4.3000 kgs
12924	3A	TADOO FLOOR STRIPPER		20.0000 kgs
14670	3A	SODIUM FLUORIDE 2.65%, SODIUM HYDROXIDE .48% AND AMMONIUM HYDROXIDE .34% SOLUTION FROM LAB		4.0000 kgs
14689	3A	SODIUM HYDROXIDE 2.0% AND HYDROCHLORIC ACID 1.6% SOLUTION FROM LAB		4.0000 kgs
14835	3A	BATTERIES - ALKALINE CONTAINING POTASSIUM HYDROXIDE FROM LAB		0.7200 kgs
16803	3A	BATTERY - 6 VOLT EVERREADY LANTERN ALKALINE 100% FROM LAB		0.5000 kgs
16804	3A	BATTERY - 6 VOLT EVERREADY LANTERN ALKALINE 100% FROM LAB		0.5000 kgs
16352	3A	ASCARITE 100% - SODIUM HYDROXIDE COATED SILICA FROM LAB		0.4540 kgs
17625	3A	SODIUM HYDROXIDE .2%, SODIUM NITRATE 1%, SODIUM NITRATE 2%, WATER 97% pH 12.74 SOLUTION FROM LAB		10.0000 kgs
17626	3A	SODIUM HYDROXIDE .2%, SODIUM NITRATE 1%, SODIUM NITRATE 2%, WATER 97% pH 12.74 SOLUTION FROM LAB		10.0000 kgs
17645	3A	BATTERIES - ALKALINE CONTAINING ZINC 16%, POTASSIUM HYDROXIDE 7%, COPPER 1%, MERCURY .5%, FROM LAB		0.2000 kgs
17831	3A	SODIUM HYDROXIDE 2.95%, HYDROCHLORIC ACID .0005%, OXIDIZED DYES TRACE SOLUTION FROM LAB		2.8000 kgs

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INVENTORY BY CELL

Cell: 3A

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
17873	3A	SODIUM HYDROXIDE 24%, WATER 76% SOLUTION FROM LAB		4.2000 kgs
17939	3A	POTASSIUM HYDROXIDE FROM LAB		2.2000 kgs
17941	3A	TETRAPROPYL AMONONIUM HYDROXIDE FROM LAB		5.0000 kgs
17942	3A	TETRAPROPYL AMONONIUM HYDROXIDE FROM LAB		5.0000 kgs
17943	3A	TETRAPROPYL AMONONIUM HYDROXIDE FROM LAB		5.0000 kgs
17944	3A	TETRAPROPYL AMONONIUM HYDROXIDE FROM LAB		5.0000 kgs
17945	3A	TETRAPROPYL AMONONIUM HYDROXIDE FROM LAB		5.0000 kgs
17946	3A	TETRAPROPYL AMONONIUM HYDROXIDE FROM LAB		5.0000 kgs
17947	3A	TETRAPROPYL AMONONIUM HYDROXIDE FROM LAB		5.0000 kgs
17948	3A	TETRAPROPYL AMONONIUM HYDROXIDE FROM LAB		5.0000 kgs
17949	3A	TETRAPROPYL AMONONIUM HYDROXIDE FROM LAB		5.0000 kgs
17950	3A	TETRAPROPYL AMONONIUM HYDROXIDE FROM LAB		5.0000 kgs
17952	3A	ETHANOLAMINE 95%, WATER 5% SOLUTION FROM LAB		3.0000 kgs
17966	3A	POTASSIUM HYDROXIDE FROM LAB		2.2000 kgs
18242	3A	SODIUM HYDROXIDE FROM LAB		0.5000 kgs
18243	3A	SODIUM HYDROXIDE FROM LAB		2.5000 kgs
18266	3A	SODIUM HYDROXIDE FROM LAB		0.4535 kgs
18147	3A	SODIUM HYDROXIDE 8%, MANNITOL 5%, HYDRAZINE SULFITE .06%, WATER 86%, HEAVY METALS <1% SOLUTION FROM		0.2500 kgs

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INVENTORY BY CELL

Cell: 3A

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
18424	3A	BATTERIES - MERCURY CONTAINING MERCURIC OXIDE 32%, POTASSIUM HYDROXIDE 11%, MERCURY 5% FROM LAB		0.0400 kgs
18436	3A	FORMALDEHYDE .5%, METHANOL .25%, SODIUM HYDROXIDE 1.3%, WATER 97.9% SOLUTION FROM LAB		2.0000 kgs
18441	3A	AMMONIUM HYDROXIDE FROM LAB		12.0000 kgs
18442	3A	AMMONIUM HYDROXIDE FROM LAB		12.0000 kgs
18443	3A	AMMONIUM HYDROXIDE FROM LAB		12.0000 kgs
18467	3A	HEWLETT PACKARD 41C RECHARGEABLE BATTERY PACK CONTAINING NICKEL 50%, CADMIUM 50% FROM LAB		0.2500 kgs
18469	3A	LITHIUM HYDROXIDE ON RESIN FROM LAB		0.0200 kgs
18470	3A	LITHIUM HYDROXIDE ON RESIN FROM LAB		0.0200 kgs
18494	3A	SODIUM HYDROXIDE 8.8%, SODIUM BISULFITE .3%, AMMONIUM NITRATE .6%, WATER 90.3% SOLUTION FROM LAB		2.5000 kgs
18495	3A	SODIUM HYDROXIDE 9.6%, AMMONIUM HYDROXIDE 1.4%, AMMONIUM PHOSPHATE .9%, SODIUM CARBONATE .3%, AMMON		2.7000 kgs
18507	3A	AMMONIUM HYDROXIDE 39%, WATER 61% SOLUTION FROM LAB		2.0000 kgs
18561	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18562	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18563	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18564	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18565	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs

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INVENTORY BY CELL

Cell: 3A

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18566	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18567	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18568	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18569	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18570	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18571	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18572	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18573	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB	18573	0.4540 kgs
18574	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB	18574	0.4540 kgs
18575	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB	18575	0.4540 kgs
18576	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18577	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18578	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18580	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18581	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18582	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs

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INVENTORY BY CELL

Cell: 3A

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
18583	3A	SILICA GEL 8%, SODIUM HYDROXIDE 92% MIX FROM LAB		0.4540 kgs
18667	3A	POTASSIUM CYANIDE .0125%, POTASSIUM HYDROXIDE .1%, WATER 99.89% SOLUTION FROM LAB		0.9000 kgs
18670	3A	SODIUM HYDROXIDE .4%, WATER 99.6% SOLUTION FROM LAB		0.2000 kgs
18671	3A	SODIUM HYDROXIDE 2.1%, WATER 97.9% SOLUTION FROM LAB		1.0000 kgs
17189	3A	ACTIVATED CHARCOAL 50%, ASBESTOS 25%, SODIUM HYDROXIDE 25% MIXTURE FROM LAB		2.0000 kgs
18861	3A	AMMONIUM HYDROXIDE 25%, WATER 75%		3.8000 kgs
Total				209.3955 kgs

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INVENTORY BY CELL

Cell: 3B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
9074	3B	SODIUM CHLORIDE	024B	1.0000 kgs
9205	3B	SODIUM CHLORIDE	024B	0.0500 kgs
9655	3B	SODIUM CHLORIDE	024B	2.0000 kgs
9662	3B	SODIUM CHLORIDE	024B	1.0000 kgs
9674	3B	SODIUM CHLORIDE	024B	0.0010 kgs
9804	3B	SODIUM CHLORIDE	024B	0.3500 kgs
9966	3B	PHENANTHRENE		1.0000 kgs
10004	3B	PHENOSAFRANIN		0.0010 kgs
10977	3B	PHENYL ACETIC ACID		0.0010 kgs
10985	3B	SODIUM CHLORIDE	024B	0.0250 kgs
10986	3B	SODIUM DODECYL SULFATE		0.0200 kgs
10987	3B	DIAZALD		0.1000 kgs
10915	3B	SODIUM CHLORIDE	024B	0.0010 kgs
10916	3B	SODIUM CHLORIDE	024B	0.0100 kgs
11130	3B	SODIUM CHLORIDE	024B	0.2500 kgs
11369	3B	SALT	024B	4.0000 kgs
11440	3B	SODIUM CHLORIDE	024B	0.1000 kgs
11460	3B	SALT	024B	0.3000 kgs
12669	3B	SODIUM SILICATE		1.0000 kgs

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INVENTORY BY CELL

Cell: 3B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
12674	3B	SODIUM ACETATE		1.0000 kgs
12681	3B	ZINC		0.4500 kgs
12686	3B	VANADIUM PENTOXIDE		0.5000 kgs
15858	3B	SODIUM BARBITAL FROM LAB		0.0500 kgs
11222	3B	SODIUM CHLORIDE 100% FROM LAB	024B	0.2500 kgs
8804	3B	SODIUM CHLORIDE 100% FROM LAB	024B	0.5000 kgs
5207	3B	SODIUM CHLORIDE 100% FROM LAB	024B	0.9070 kgs
2620	3B	SODIUM CHLORIDE 100% FROM LAB	024B	4.5000 kgs
2808	3B	SODIUM CHLORIDE 100% FROM LAB	024B	1.3605 kgs
8201	3B	SODIUM CHLORIDE 100% FROM LAB	024B	2.5000 kgs
6634	3B	SODIUM CHLORIDE 100% FROM LAB	024B	0.2270 kgs
7359	3B	SODIUM CHLORIDE 100% FROM LAB	024B	4.3000 kgs
6186	3B	SODIUM CHLORIDE 100% FROM LAB	024B	2.1400 kgs
5840	3B	SODIUM CHLORIDE 100% FROM LAB	024B	0.5000 kgs
5841	3B	SODIUM CHLORIDE 100% FROM LAB	024B	1.0000 kgs
16686	3B	PURE NICKEL STRANDS (WIRE) 100% FROM LAB		0.6000 kgs
17353	3B	n-METHYL-n-NITRONITROSOQUANIDINE .1%, WATER 99.9% SOLUTION FROM LAB • PULLED FROM BNW-821L	BNW-821	0.1000 kgs
17377	3B	METCO 43C POWDER - CONTAINING NICKEL 80%, CHROMIUM 20% FROM LAB		0.5000 kgs

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INVENTORY BY CELL

Cell: 3B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
17399	3B	SILICON, SOLID LUMP FROM LAB		0.1800 kgs
17408	3B	SILICON 99.6% FROM LAB		2.0000 kgs
17409	3B	NICKEL FROM LAB		9.0000 kgs
17430	3B	SILICON METAL POWER FROM LAB		4.5000 kgs
17440	3B	SILICON METAL FROM LAB		1.5000 kgs
17448	3B	SILICON METAL FROM LAB		0.6200 kgs
17456	3B	NICKEL POWDER FROM LAB		0.3200 kgs
17457	3B	NICKEL POWDER FROM LAB		0.3200 kgs
17493	3B	GUANIDINE HYDROCHLORIDE FROM LAB		0.0050 kgs
17494	3B	GUANIDINE HYDROCHLORIDE FROM LAB		0.0050 kgs
17495	3B	GUANIDINE HYDROCHLORIDE FROM LAB		0.0010 kgs
17620	3B	LIQUID SCINTILLATION COCKTAIL FROM LAB		1.0000 kgs
17621	3B	LIQUID SCINTILLATION COCKTAIL FROM LAB		1.0000 kgs
17642	3B	MAGNESIUM CHLORIDE 100% SOLUTION FROM LAB		0.7000 kgs
15250	3B	SODIUM CHLORIDE 99.7%, RAGS .1%, FIBERBOARD .1%, METAL DISC .1% FROM LAB	15250	273.0000 kgs
17698	3B	OIL FROM LAB (H.H. = 5979 ppm)		0.9000 kgs
17720	3B	CONTAINING TITANIUM DIOXIDE, 2,2,4, TRIMETHYL, 1,3 PENTANEDIOL ISOBUTYRATE, FORMERS, RESINS AND ADD		2.3000 kgs
17721	3B	CONTAINING TITANIUM DIOXIDE, ETHYL BENZENE, XYLENE, ALUMINUM SILICATE, CALCIUM CARBONATE FROM LAB		0.9100 kgs
17732	3B	CHLORAL HYDRATE FROM LAB (#6278 pulled from MRC-030)		0.5000 kgs
17857	3B	SODIUM IODIDE FROM LAB		0.2500 kgs
17778	3B	BENZOIC ACID FROM LAB		0.5000 kgs

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INVENTORY BY CELL

Cell: 3B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
17782	3B	ZINC ACETATE FROM LAB		0.5000 kgs
17784	3B	SODIUM BROMIDE FROM LAB		0.5000 kgs
17785	3B	BROMOTHYMOL BLUE FROM LAB		0.0100 kgs
17788	3B	HYDROQUINONE FROM LAB		0.5000 kgs
17879	3B	WATER 99.14%, CETYLTRIMETHYLAMMONIUM BROMIDE .02%, ACETIC ACID .49%, POTASSIUM BROMIDE .3%, MAGNESI		1.0000 kgs
17880	3B	WATER 99.2%, CETYLTRIMETHYLAMMONIUM BROMIDE .35%, ACETIC ACID .4%, POTASSIUM BROMIDE .01%, ACETIC A		4.0000 kgs
17881	3B	WATER 99.2%, CETYLTRIMETHYLAMMONIUM BROMIDE .03%, ACETIC ACID .5%, POTASSIUM BROMIDE .008%, ACETIC		4.0000 kgs
17925	3B	PROCAINE 99%, WATER 1% FROM LAB		0.5000 kgs
17926	3B	PROCAINE 99%, WATER 1% FROM LAB		0.5000 kgs
17929	3B	MAGNESIUM CHLORIDE FROM LAB		2.2000 kgs
17954	3B	BROMPHENOL BLUE FROM LAB		0.0100 kgs
17959	3B	COPPER SULFATE FROM LAB		0.1000 kgs
17960	3B	8 QUINOLINE FROM LAB		0.1000 kgs
17961	3B	5 BROMO URACIL FROM LAB		0.0250 kgs
17968	3B	PLATINUM DICHLORIDE 99.9%, WATER .1% FROM LAB		0.0010 kgs
17970	3B	PHENYLPROPANOLAMINE HYDROCHLORIDE FROM LAB		0.0500 kgs
17971	3B	PLATINUM CHLORIDE 10%, WATER 90% SOLUTION FROM LAB		0.0290 kgs
17972	3B	CESIUM SULFATE FROM LAB		0.0100 kgs
18036	3B	ALUMINUM OXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0020 kgs
18037	3B	ALUMINUM OXIDE 99.95%, BERYLLIUM .05% FROM LAB		0.0020 kgs
18038	3B	ALUMINUM OXIDE 99.9%, BERYLLIUM .1% FROM LAB		0.0020 kgs

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INVENTORY BY CELL

Cell: 3B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18039	3B	ALUMINUM OXIDE 99%, BERYLLIUM 1% FROM LAB		0.0020 kgs
18040	3B	ALUMINUM OXIDE 99.5%, BERYLLIUM .5% FROM LAB		0.0020 kgs
18046	3B	DUST (HANFORD SOIL) 99.8%, BERYLLIUM .2% FROM LAB		0.0010 kgs
18047	3B	DUST (HANFORD SOIL) 99.5%, BERYLLIUM .5% FROM LAB		0.0010 kgs
18048	3B	DUST (HANFORD SOIL) 99%, BERYLLIUM 1% FROM LAB		0.0010 kgs
18050	3B	COPPER(II) OXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
18051	3B	COPPER(II) OXIDE 99.99%, BERYLLIUM .1% FROM LAB		0.0001 kgs
18052	3B	ZIRCONIUM OXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
18053	3B	ZIRCONIUM OXIDE 99.9%, BERYLLIUM .1% FROM LAB		0.0001 kgs
18055	3B	ALUMINUM OXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
18056	3B	ALUMINUM OXIDE 99.9%, BERYLLIUM .1% FROM LAB		0.0001 kgs
18057	3B	TITANIUM SESQUIOXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
18058	3B	TITANIUM SESQUIOXIDE 99.9%, BERYLLIUM .1% FROM LAB		0.0001 kgs
18059	3B	MAGNESIUM OXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
18060	3B	MAGNESIUM OXIDE 99.9%, BERYLLIUM .1% FROM LAB		0.0001 kgs
18061	3B	ZINC OXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs

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INVENTORY BY CELL

Cell: 3B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18062	3B	ZINC OXIDE 99.9%, BERYLLIUM .1% FROM LAB		0.0001 kgs
18063	3B	FERRIC OXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
18064	3B	FERRIC OXIDE 99.9%, BERYLLIUM .1% FROM LAB		0.0001 kgs
18065	3B	TIN DIOXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
18066	3B	TIN DIOXIDE 99.9%, BERYLLIUM .1% FROM LAB		0.0001 kgs
18067	3B	MAGNESIUM OXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
18068	3B	MAGNESIUM OXIDE 99.9%, BERYLLIUM .1% FROM LAB		0.0001 kgs
18073	3B	POTASSIUM SULFATE 49.999%, SODIUM SULFATE 49.999%, BERYLLIUM .02% FROM LAB		0.0010 kgs
18074	3B	POTASSIUM SULFATE 49.9975%, SODIUM SULFATE 49.9975%, BERYLLIUM .05% FROM LAB		0.0010 kgs
18075	3B	POTASSIUM SULFATE 49.995%, SODIUM SULFATE 49.995%, BERYLLIUM .01% FROM LAB		0.0010 kgs
18076	3B	CALCIUM OXIDE 99.99%, BERYLLIUM .01%		0.0001 kgs
18077	3B	SILICON DIOXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
18078	3B	HTQ SALT 99.99%, BERYLLIUM .01% FROM LAB		0.0001 kgs
18081	3B	GRAPHITE 99.99%, BERYLLIUM OXIDE .01% FROM LAB		0.0010 kgs
18082	3B	GRAPHITE 99.99%, BERYLLIUM OXIDE .01% FROM LAB		0.0010 kgs
18083	3B	GRAPHITE 99.98%, BERYLLIUM OXIDE .02% FROM LAB		0.0010 kgs

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INVENTORY BY CELL

Cell: 3B

ITEM #	CELL	WASTE DESCRIPTION	DRUM #	VOLUME KGS
18084	3B	GRAPHITE 99.96%, BERYLLIUM OXIDE .04% FROM LAB		0.0010 kgs
18085	3B	GRAPHITE 99.96%, BERYLLIUM OXIDE .04% FROM LAB		0.0010 kgs
18086	3B	GRAPHITE 99.8%, BERYLLIUM OXIDE .2% FROM LAB		0.0010 kgs
18087	3B	GRAPHITE 99.5%, BERYLLIUM OXIDE .5% FROM LAB		0.0010 kgs
18088	3B	GRAPHITE 99.9%, BERYLLIUM OXIDE .1% FROM LAB		0.0010 kgs
18089	3B	GRAPHITE 99.8%, BERYLLIUM OXIDE .2% FROM LAB		0.0010 kgs
18090	3B	GRAPHITE 99.8%, BERYLLIUM OXIDE .2% FROM LAB		0.0010 kgs
18091	3B	GRAPHITE 99.99%, BERYLLIUM OXIDE .01% FROM LAB		0.0250 kgs
18092	3B	GRAPHITE 99.9%, BERYLLIUM OXIDE .1% FROM LAB		0.0250 kgs
18093	3B	GRAPHITE 99.9%, BERYLLIUM OXIDE .1% FROM LAB		0.0010 kgs
18096	3B	POTASSIUM SULFATE 49.995%, SODIUM SULFATE 49.995%, BERYLLIUM .01% FROM LAB		0.0200 kgs
18098	3B	POTASSIUM SULFATE 49.95%, SODIUM SULFATE 49.95%, BERYLLIUM .1% FROM LAB		0.0200 kgs
18099	3B	POTASSIUM SULFATE 49.9%, SODIUM SULFATE 49.9%, BERYLLIUM .2% FROM LAB		0.0200 kgs
18100	3B	POTASSIUM SULFATE 49.75%, SODIUM SULFATE 49.75%, BERYLLIUM .5% FROM LAB		0.0200 kgs
18102	3B	ZINC OXIDE 99.99%, CADMIUM .01% FROM LAB		0.0200 kgs
18103	3B	ZINC OXIDE 99.9%, CADMIUM .1% FROM LAB		0.0200 kgs

9 3 1 2 9 0 3 1 1 4 2

INVENTORY BY CELL

Cell: 3B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18104	3B	TIN OXIDE 99.99%, BERYLLIUM .01% FROM LAB		0.0010 kgs
18105	3B	HTQ SALT 99.99%, BERYLLIUM .01% FROM LAB		0.0010 kgs
18119	3B	MAGNESIUM OXIDE 66.6%, SODIUM CARBONATE 33.4% FROM LAB		0.1000 kgs
18136	3B	SODIUM ACETATE FROM LAB		0.4540 kgs
18137	3B	SODIUM ACETATE FROM LAB		0.4540 kgs
18138	3B	SODIUM ACETATE FROM LAB		0.4540 kgs
18139	3B	SODIUM ACETATE FROM LAB		0.4540 kgs
18226	3B	AMMONIUM MOLYBDATE FROM LAB		0.4535 kgs
18228	3B	AMMONIUM THIOCYANATE FROM LAB		0.4535 kgs
18264	3B	SODIUM BICARBONATE FROM LAB		0.4535 kgs
18265	3B	SODIUM CARBONATE FROM LAB		0.4535 kgs
18275	3B	ORTHOBORIC ACID FROM LAB		0.2500 kgs
18158	3B	MECHANICAL PUMP OIL - CONTAMINATED WITH CADMIUM <1 ppm FROM LAB		2.0000 kgs
18183	3B	AMMONIUM MOLYBDATE FROM LAB		0.4530 kgs
18189	3B	AMMONIUM MOLYBDATE FROM LAB		0.4530 kgs
18328	3B	NICKEL .139%, SILICON DIOXIDE .27%, GLYCERIN 9.591%, WATER 90% SOLUTION FROM LAB		3.6000 kgs
18376	3B	WATER 80%, ISOPROPYL ALCOHOL 15%, AMMONIA WATER 5% SOLUTION FROM LAB		0.0283 kgs
18383	3B	SCOTCH CAST ELECTRICAL RESIN - CONTAINING NONYL PHENOL 5-15%, AROMATIC HYDROCARBON RESIN 45-55%, ARO		0.1000 kgs
18514	3B	CALCIUM CHLORIDE FROM LAB		0.1000 kgs
18515	3B	BORIC ACID CRYSTAL FROM LAB		0.5000 kgs

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INVENTORY BY CELL

Cell: 3B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>* DRUM #</u>	<u>VOLUME KGS</u>
18516	3B	BENZOIC ACID CRYSTAL FROM LAB		0.5000 kgs
18552	3B	SODIUM CARBONATE FROM LAB		0.5000 kgs
18553	3B	SODIUM CARBONATE FROM LAB		0.5000 kgs
18557	3B	SODIUM BICARBONATE FROM LAB		0.4540 kgs
18584	3B	POTASSIUM CHLORIDE FROM LAB		0.4540 kgs
18586	3B	RUTHENIUM DIOXIDE FROM LAB		0.0010 kgs
18504	3B	NICKEL METAL POWDER FROM LAB		0.0300 kgs
18506	3B	NICKEL METAL FROM LAB		0.1200 kgs
18628	3B	BORIC ACID FROM LAB		0.4535 kgs
18629	3B	BORIC ACID FROM LAB		0.4535 kgs
18630	3B	BORIC ACID FROM LAB		0.4535 kgs
18632	3B	CALCIUM CHLORIDE FROM LAB		2.3000 kgs
18638	3B	BORIC ACID FROM LAB		0.2000 kgs
18643	3B	n-HYDROXYETHYL ETHYLENEDAMINE TRIACETIC ACID FROM LAB		0.2000 kgs
18646	3B	THENOYL TRIFLUORO ACETONE 11.12%, XYLENE 88.9% SOLUTION FROM LAB		0.6500 kgs
18668	3B	BROM CRESOL GREEN FROM LAB		0.0010 kgs
18683	3B	LITHIUM CARBONATE FROM LAB		0.1000 kgs
18726	3B	PENTYLENETETRAZOLE FROM LAB		0.0600 kgs
18727	3B	PENTYLENETETRAZOLE FROM LAB		0.0600 kgs
18728	3B	ETHYLENE GLYCOL FROM LAB		1.0000 kgs
18678	3B	DIPHENYL OXIDE 73%, DIPHENYL 27% SOLUTION FROM LAB		0.4540 kgs
18679	3B	DIPHENYL OXIDE 73%, DIPHENYL 27% SOLUTION FROM LAB		0.4540 kgs
18748	3B	SODIUM CARBONATE 99%, PARAFORMALDEHYDE 1% SOLUTION FROM LAB		0.1200 kgs
18749	3B	SODIUM CARBONATE 99%, PARAFORMALDEHYDE 1% SOLUTION FROM LAB		0.1200 kgs

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INVENTORY BY CELL

Cell: 3B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
18750	3B	SODIUM CARBONATE 99%, PARAFORMALDEHYDE 1% SOLUTION FROM LAB		0.1200 kgs
18751	3B	SODIUM CARBONATE 99%, PARAFORMALDEHYDE 1% SOLUTION FROM LAB		0.1200 kgs
12195	3B	NICKELOUS SULFATE	169L	0.4540 kgs
			Total	367.8874 kgs

9 3 1 2 9 0 3 0 1 4 5
INVENTORY BY CELL

Cell: 3C

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME.KGS</u>
9144	3C	ZINC CHLORIDE		1.5000 kgs
9963	3C	TITANIUM TRICHLORIDE		2.7200 kgs
10913	3C	AMMONIUM SULFITE		0.0010 kgs
10918	3C	1-ALLYL-2-THIOUREA		0.0010 kgs
12034	3C	ALUMINUM		0.4540 kgs
12546	3C	COPPER		2.5000 kgs
14399	3C	LITHIUM FROM LAB		1.0000 kgs
15474	3C	GUANAZULENE FROM LAB		0.0250 kgs
17335	3C	BATTERIES - LITHIUM		2.5000 kgs
			Total	10.7010 kgs

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INVENTORY BY CELL

Cell: 3D

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
10255	3D	SEPHAROSE 4B		1.0000 kgs
10317	3D	HARDENER		1.0000 kgs
10318	3D	EPOCAST 202		1.0000 kgs
15197	3D	2,4,6 TRIMETHYLPYRIDINE 2.5% AND NINHYDRAN .2% FROM LAB		0.5000 kgs
18480	3D	DOG BLOOD 20%, FORMALIN 40%, WATER 40% SOLUTION FROM LAB • CONTAINER PULLED FROM MRC-049		0.5000 kgs
18481	3D	DOG BLOOD 20%, FORMALIN 40%, WATER 40% SOLUTION FROM LAB • CONTAINER PULLED FROM MRC-049		0.5000 kgs
			Total	4.5000 kgs

9 3 1 2 9 3 3 1 4 7
INVENTORY BY CELL
 Cell: 4

REVIEW COPY
 (SUBJECT TO CHANGE)
 DATE: 11/25/92

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
16556	4	OIL - USED VACUUM 100% FROM LAB	416B	3.8000 kgs
17153	4	OIL - VACUUM PUMP 100% FROM LAB	416B	0.7000 kgs
17154	4	OIL - VACUUM PUMP 100% FROM LAB	416B	0.7000 kgs
17155	4	OIL - VACUUM PUMP 100% FROM LAB	416B	0.7000 kgs
17156	4	OIL - VACUUM PUMP 100% FROM LAB	416B	0.7000 kgs
17157	4	OIL - VACUUM PUMP 100% FROM LAB	416B	0.7000 kgs
17158	4	OIL - VACUUM PUMP 100% FROM LAB	416B	0.7000 kgs
17159	4	OIL - HYDRAULIC 100% FROM LAB	416B	0.2000 kgs
17468	4	2-METHOXYETHYL ETHER FROM LAB	485L	0.2000 kgs
17587	4	ETHYL SILICATE FROM LAB	485L	3.0000 kgs
17589	4	FURFURAL FROM LAB	485L	0.5500 kgs
17590	4	FURFURAL FROM LAB	485L	0.5500 kgs
17615	4	VACUUM PUMP OIL 100% FROM LAB	416B	3.4000 kgs
17624	4	VACUUM PUMP OIL 100% FROM LAB	416B	1.0000 kgs
17697	4	OIL FROM LAB (flashpoint 432 degrees F)	416B	2.0000 kgs
17699	4	OIL FROM LAB	416B	7.5000 kgs

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INVENTORY BY CELL

Cell: 4

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
17700	4	OIL FROM LAB	416B	4.5000 kgs
17715	4	SHELL DIALA OIL AX WITH <2% BUTYLATED HYDROXY AND TOLUENE FROM LAB	416B	26.6000 kgs
17716	4	SHELL DIALA OIL AX WITH <2% BUTYLATED HYDROXY AND TOLUENE FROM LAB	416B	24.9000 kgs
17717	4	SHELL DIALA OIL AX WITH <2% BUTYLATED HYDROXY AND TOLUENE FROM LAB	416B	24.9000 kgs
17718	4	SHELL DIALA OIL AX WITH <2% BUTYLATED HYDROXY AND TOLUENE FROM LAB	416B	24.9000 kgs
17719	4	SHELL DIALA OIL AX WITH <2% BUTYLATED HYDROXY AND TOLUENE FROM LAB	416B	11.4000 kgs
17801	4	VACUUM PUMP OIL FROM LAB	416B	28.0000 kgs
17933	4	1-OCTANOL 99%, WATER 1% SOLUTION FROM LAB	485L	0.5000 kgs
17980	4	2 METHYOXY ETHANOL FROM LAB	485L	4.0000 kgs
18330	4	MINERAL OIL FROM LAB	416B	18.0000 kgs
18397	4	PETROLEUM DISTILLATES FROM LAB • MRC-224	MRC-224	2.9700 kgs
18398	4	HEAVY NAPHTHA FROM LAB • MRC-225	MRC-225	0.3300 kgs
18419	4	SIMULATED GROUND WATER 80%, CARBON TETRACHLORIDE .17%, HEXANE 19.83% SOLUTION FROM LAB	485L	3.4000 kgs
18429	4	TURBINE OIL FROM LAB	416B	8.1000 kgs
18472	4	PSEUDOCUMENE 59%, NON-IONIC EMULSIFIERS/FLUORS 41% SOLUTION FROM LAB	485L	3.5000 kgs
18864	4	USED VACUUM PUMP OIL 100%		1.0000 kgs
			Total	213.4000 kgs

9 3 1 2 9 0 3 3 1 4 9
INVENTORY BY CELL

Cell: 4A

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
9791	4A	SODIUM PENTACHLOROPHENNATE		20.0000 kgs
9792	4A	2,4,5-TRICHLOROPHENOL		0.0050 kgs
9793	4A	SODIUM PENTACHLOROPHENNATE		4.0000 kgs
10717	4A	LUBRICANT		0.1000 kgs
12082	4A	CHLORAL HYDRATE FROM LAB - CROSSED OUT ON REQUEST		0.4540 kgs
16455	4A	METHYLENE CHLORIDE 98%, PENTACHLOROPHENOL 2% FROM LAB		0.1000 kgs
17870	4A	1,12-TRICHLOROTRIFLUORO ETHANE FROM LAB		1.6000 kgs
17874	4A	1,1,2,TRICHLOROTRIFLUORO ETHANE FROM LAB		0.7870 kgs
17875	4A	1,1,2,TRICHLOROTRIFLUORO ETHANE FROM LAB		0.7870 kgs
18271	4A	DRICOTE CONTAINING METHYLENE CHLORIDE 97.85 FROM LAB		0.0567 kgs
18377	4A	1-1-1 TRICHLOROETHANE 98%, PHENYLETHYLETHANOLAMINE 2% SOLUTION FROM LAB		0.0283 kgs
18378	4A	1-1-1 TRICHLOROETHANE 98%, PHENYLETHYLETHANOLAMINE 2% SOLUTION FROM LAB		0.0283 kgs
17468	4A	WASTE METHOXYETHYL ETHER		0.2000 kgs
16554	4A	1,1,2-TRICHLOROTRIFLUOROETHANE 95%, SILICONES 5% FROM LAB		2.1000 kgs
16500	4A	MERCURY, NITRIC ACID, CHROMIC ACID FROM LAB • LABPACK BNW-837	BNW-837	47.4500 kgs
			Total	77.6963 kgs

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INVENTORY BY CELL

Cell: 4B

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
17619	4B	OIL PCB 3 ppm from lab		1.7000 kgs
18379	4B	METHYL-2-CYANOACRYLATE 90% SOLUTION FROM LAB		0.0300 kgs
18380	4B	METHYL-2-CYANOACRYLATE 90% SOLUTION FROM LAB		0.0300 kgs
18656	4B	NORMAL PARAFFIN HYDRO CARBON FROM LAB		2.1000 kgs
18661	4B	TRIBUTYL PHOSPHATE 30% KEROSENE 70% FROM LAB		0.7000 kgs
18662	4B	ISOPENTYL ALCOHOL FROM LAB		0.4800 kgs
18759	4B	ISOPENTYL ALCOHOL FROM LAB		0.4800 kgs
18760	4B	ISOPENTYL ALCOHOL FROM LAB		0.4800 kgs
18761	4B	ISOPENTYL ALCOHOL FROM LAB		0.4800 kgs
18762	4B	ISOPENTYL ALCOHOL FROM LAB		0.4800 kgs
18763	4B	ISOPENTYL ALCOHOL FROM LAB		0.4800 kgs
18764	4B	ISOPENTYL ALCOHOL FROM LAB		0.4800 kgs
18765	4B	ISOPENTYL ALCOHOL FROM LAB		0.4800 kgs
18766	4B	ISOPENTYL ALCOHOL FROM LAB		0.4800 kgs
18767	4B	ISOPENTYL ALCOHOL FROM LAB		0.4800 kgs
18768	4B	ISOPENTYL ALCOHOL FROM LAB		0.0300 kgs
18691	4B	n-DODECANE FROM LAB		0.0020 kgs
18769	4B	n-DODECANE FROM LAB		0.0020 kgs
18725	4B	ETHANOL 31%, GLACIAL ACETIC ACID 5%, POLYVINYL ACETATE 5%, MECURIC CHLORIDE 4.5%, GLYCEROL 2%, WATE		0.5000 kgs
18744	4B	METHYL CELLOSOLVE ACETATE FROM LAB		3.8000 kgs
12792	4B	READY GEL - BECKMAN'S		7.5000 kgs
			Total	21.1940 kgs

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INVENTORY BY CELL

Cell: 4C

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
9740	4C	TEFLON PAINT		5.9920 kgs
18344	4C	DURALCO 254 - ROOM TEMP BINDER CONTAINING TOLUENE FROM LAB		0.3500 kgs
18345	4C	DURALCO 254 - ROOM TEMP BINDER CONTAINING TOLUENE FROM LAB		0.3500 kgs
18346	4C	ALUMINA FIBER BASE - COLTRONICS 901 FROM LAB		0.1500 kgs
18525	4C	ACETONE FROM LAB		5.0000 kgs
18637	4C	AMMONIUM SULFIDE 20%, WATER 80% SOLUTION FROM LAB		0.2000 kgs
18644	4C	SODIUM SULFIDE 20%, WATER 80% SOLUTION FROM LAB		0.3000 kgs
18650	4C	CYCLOHEXANONE FROM LAB		0.0400 kgs
18657	4C	1,2 DICHLOROETHANE #511280 FROM LAB		3.5000 kgs
18658	4C	CYCLOHEXANONE FROM LAB		3.5000 kgs
18660	4C	CYCLOHEXANE FROM LAB		3.0000 kgs
18663	4C	CYCLOHEXANE FROM LAB		0.5000 kgs
18687	4C	TRIARYLEMETHANE 20%, METHYL ALCOHOL 80% SOLUTION FROM LAB		0.1600 kgs
17747	4C	METHANOL, TOLUENE, BENZENE, MERCURY, CHROME, METHYLENE CHLORIDE FROM LAB • MRC-155	MRC-155	49.0000 kgs
18300	4C	ACETONE, METHYLENE CHLORIDE, (PYRIDINE), BENZENE, CHLOROFORM FROM LAB • MRC-186	MRC-186	21.5000 kgs
18862	4C	METHANOL 60%, FLURIDONE <.01%, WATER 40%		0.2500 kgs
18863	4C	METHANOL 60%, FLURIDONE <.01%, WATER 40%		0.2500 kgs
Total				94.0420 kgs

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INVENTORY BY CELL

Cell: 4E

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
8898	4E	MAGNAFLUX DEVELOPER ZP-4A DRY TYPE		0.3000 kgs
9760	4E	WHITMIRE PRESCRIPTION SYSTEM AEROSOL	369L	0.2000 kgs
10144	4E	GLASS CLEANER	369L	0.6000 kgs
10304	4E	CLEANER	369L	4.0000 kgs
10473	4E	FELT FLOCK UNDERCOAT		0.3000 kgs
12605	4E	PAINT - CLEAR	369L	0.3690 kgs
12049	4E	ANTIFOAM-A SPRAY	369L	0.1700 kgs
12093	4E	CONTACTENE	369L	0.1500 kgs
15266	4E	ACETONE 50% AND PROPANE 30% ORGANIC MIXTURE FROM LAB	369L	1.0000 kgs
15267	4E	ACETONE 50% AND PROPANE 30% ORGANIC MIXTURE FROM LAB	369L	1.0000 kgs
15269	4E	1,1,1-TRICHLOROETHANE >95% FROM LAB	369L	0.0670 kgs
15245	4E	MONOETHANOLAMINE 5% AND ISOPROPYL ALCOHOL 20% SOLUTION FROM LAB	369L	0.6380 kgs
15291	4E	RP SUPER FILTER COAT AIR FILTER ADHESIVE FROM LAB	369L	2.2200 kgs
13688	4E	SPRAY PAINT FROM LAB	369L	0.4000 kgs
18501	4E	HYDROGEN 45%, CARBON MONOXIDE 40%, NITROGEN 5%, HELLIUM 10% FROM LAB		0.4500 kgs
18502	4E	HYDROGEN 15%, CARBON MONOXIDE 10%, NITROGEN 5%, HELLIUM 70% FROM LAB		0.4500 kgs

9 0 1 2 9 0 3 0 1 5 3
INVENTORY BY CELL

Cell: 4E

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME.KGS</u>
18503	4E	HYDROGEN 15%, CARBON MONOXIDE 50%, NITROGEN 10%, HELLIUM 25% FROM LAB		0.4500 kgs
			Total	12.7640 kgs

9 3 1 2 9 0 3 0 1 5 4

INVENTORY BY CELL

Cell: 4F

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
13303	4F	N-METHYL-N-NITRO-N-NITROSOGUANIDINE FROM LAB		0.0010 kgs
15201	4F	1,3,5-TRINITROBENZENE 5%, WATER 47.5% & ETHANOL 47.5% SOLUTION FROM LAB		0.0500 kgs
18035	4F	GRAPHITE 90%, ZICONIUM 10% FROM LAB		0.0010 kgs
18106	4F	ALUMINIUM 49.998%, LITHIUM 49.998%, BISMUTH .01%, CADMIUM .01%, COBALT .01%, MANGANESE .01% FROM LA		0.0200 kgs
18107	4F	ALUMINIUM 49.9998%, LITHIUM 49.9998%, BISMUTH .0001%, CADMIUM .0001%, COBALT .0001%, MANGANESE .000		0.0200 kgs
18108	4F	ALUMINIUM 49.998%, LITHIUM 49.998%, BISMUTH .001%, CADMIUM .001%, COBALT .001% MANGANESE .001% FROM		0.0200 kgs
18109	4F	GRAPHITE 99.9988%, ALUMINIUM .0002%, CADMIUM .0002%, CHROMIUM .0002%, IRON .0002%, LEAD .0002%, ZIN		0.0200 kgs
18110	4F	GRAPHITE 99.9969%, ALUMINIUM .0005%, CADMIUM .0005%, CHROMIUM .0005%, IRON .0005%, LEAD .0005%, ZIN		0.0200 kgs
18111	4F	GRAPHITE 99.9939%, ALUMINIUM .001%, CADMIUM .001%, CHROMIUM .001%, IRON .001%, LEAD .001%, ZINC .00		0.0200 kgs
18112	4F	GRAPHITE 99.98785, ALUMINIUM .002%, CADMIUM .002%, CHROMIUM .002%, IRON .002%, LEAD .002%, ZINC .00		0.0200 kgs
18113	4F	GRAPHITE 99.9695%, ALUMINIUM .005%, CADMIUM .005%, CHROMIUM .005%, IRON .005%, LEAD .005%, ZINC .00		0.0200 kgs
18114	4F	GRAPHITE 99.939%, ALUMINIUM .01%, CADMIUM .01%, CHROMIUM .01%, IRON .01%, LEAD .01%, ZINC .01%, COP		0.0200 kgs
18115	4F	GRAPHITE 99.878%, ALUMINIUM .02%, CADMIUM .02%, CHROMIUM .02%, IRON .02%, LEAD .02%, ZINC .02%, COP		0.0200 kgs
18116	4F	GRAPHITE 99.695%, ALUMINIUM .05%, CADMIUM .05%, CHROMIUM .05%, IRON .05%, LEAD .05%, ZINC .05%, COP		0.0200 kgs
18117	4F	GRAPHITE 99.39%, ALUMINIUM .1%, CADMIUM .1%, CHROMIUM .1%, IRON .1%, LEAD .1%, ZINC .1%, COPPER .01		0.0200 kgs
18118	4F	GRAPHITE 63.4%, ALUMINIUM 6%, CADMIUM 6%, CHROMIUM 6%, IRON 6%, LEAD 6%, ZINC 6%, COPPER .6% FROM L		0.0200 kgs

9 3 1 2 9 0 3 0 1 5 5
INVENTORY BY CELL

Cell: 4F

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18121	4F	ALUMINIUM 99.995%, LITHIUM .005% FROM LAB		0.0010 kgs
18122	4F	ALUMINIUM 99.99%, LITHIUM .01% FROM LAB		0.0010 kgs
18123	4F	ALUMINIUM 99.98%, LITHIUM .02% FROM LAB		0.0010 kgs
18124	4F	ALUMINIUM 99.95%, LITHIUM .05% FROM LAB		0.0010 kgs
18125	4F	ALUMINIUM 99.9%, LITHIUM .1% FROM LAB		0.0010 kgs
18128	4F	ALUMINIUM 99%, LITHIUM NITRATE 1% FROM LAB		0.0010 kgs
18129	4F	ALUMINIUM 99%, LITHIUM NITRITE 1% FROM LAB		0.0010 kgs
18130	4F	ALUMINIUM 99.99%, LITHIUM NITRITE .01% FROM LAB		0.0010 kgs
18191	4F	SODIUM SULFIDE 9-HYDRATE FROM LAB		0.5000 kgs
18640	4F	MAGNESIUM TURNINGS FROM LAB		0.0100 kgs
			Total	0.8300 kgs

9 3 1 2 9 0 3 0 1 5 6

INVENTORY BY CELL

Cell: 4G

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
9103	4G	POTASSIUM FERRICYANIDE		0.5000 kgs
9266	4G	CHLOROFORM		4.0000 kgs
9770	4G	D-CAMPHOR		0.2500 kgs
9951	4G	1-BUTANOL		0.7700 kgs
9962	4G	METHYL SULFOXIDE		1.3600 kgs
9999	4G	DINITROFLUOROBENZENE		0.0250 kgs
10364	4G	FREON		1.0000 kgs
10371	4G	3-THIENYL-TRIFLUOROBUTANEDIONE		0.2000 kgs
10808	4G	CHROMIST		0.1250 kgs
10833	4G	FREON		0.3000 kgs
10557	4G	IDOHEXADECANE		0.1000 kgs
10559	4G	1-IDOHEPTANE		0.0200 kgs
10560	4G	1-IDO OCTANE		0.0400 kgs
10561	4G	ISOPROPYLIODIDE		0.0600 kgs
10971	4G	LUMMUS TLP BLEND COAL		0.0600 kgs
10993	4G	2-THENOYL TRIFLUOROACETONE		0.0400 kgs
10659	4G	DIBUTYL BUTYLPHOSPHONATE		16.0000 kgs
10660	4G	ETHYL ACETATE		4.0000 kgs
11707	4G	IODOPROPANE		0.1000 kgs
11735	4G	FREON		1.0000 kgs
11082	4G	3,5 DIIDO-4 PYRIDONE, N ACETIC ACID		0.0500 kgs
11174	4G	MERCAPTOETHANOL		0.8000 kgs
11185	4G	CLEANER AND POLISHER		0.3000 kgs
11228	4G	FREON		0.0750 kgs
11249	4G	POTASSIUM FERRICYANIDE		0.4000 kgs
11266	4G	OIL		0.4000 kgs
11305	4G	SODIUM SULFIDE		0.0500 kgs
11349	4G	PENTAFLUORABENZOIC ACID		0.0020 kgs

9 3 1 2 9 0 3 0 1 5 7
INVENTORY BY CELL

Cell: 4G

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
11358	4G	TETRABUTYLAMMONIUM BROMIDE		0.1000 kgs
11500	4G	POTASSIUM FERRICYANIDE		0.4000 kgs
11627	4G	METHYL TRICAPRYLYL AMMONIUM CHLORIDE		0.7000 kgs
11868	4G	HYDRAZINE		0.5000 kgs
11872	4G	BEHOLD POLISH		0.4640 kgs
12719	4G	ORGANIC SOLUTION		1.0000 kgs
12721	4G	URETHANE		0.3000 kgs
12865	4G	PAINT - KRYLON		0.3000 kgs
13044	4G	ZIP-STRIP PAINT REMOVER		0.4000 kgs
13050	4G	AMYL ACETATE		2.5000 kgs
13051	4G	BENZENE		0.5000 kgs
13052	4G	TRICHLOROETHYLENE		4.0000 kgs
13053	4G	1,1,2 TRICHLOROTRIFLUOROETHANE		1.0000 kgs
13599	4G	SCINTILLATION COCKTAIL 90% SOLUTION FROM LAB		3.5000 kgs
14225	4G	METHANOL 20% SOLUTION FROM LAB		3.0000 kgs
14371	4G	METHYLENE CHLORIDE 80%, ETHANOL 10% AND MINERAL SPIRITS 5% SOLUTION FROM LAB		4.0000 kgs
14373	4G	PNEUMATIC OIL 10W FROM LAB		1.0000 kgs
14394	4G	PETROLEUM GREASE FROM LAB		4.0000 kgs
14382	4G	TRICHLOROETHYLENE FROM LAB		4.0000 kgs
8764	4G	TITANIUM		2.0000 kgs
10351	4G	ALUMINUM POWDER		0.3590 kgs
11593	4G	SODIUM SULFIDE		2.0000 kgs
12354	4G	RUBBER CEMENT - NAPHTHA 89% SOLUTION FROM LAB		0.0100 kgs
12864	4G	CLEANER - BATTERY		0.3000 kgs

9 3 1 2 9 0 3 0 1 5 8

INVENTORY BY CELL

Cell: 4G

<u>ITEM#</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM#</u>	<u>VOLUME KGS</u>
10588	4G	CHROMIC NITRATE		0.8000 kgs
			Total	69.1600 kgs

9 3 1 2 9 0 3 1 1 5 9

INVENTORY BY CELL

(SUBJECT TO CHANGE)

DATE: 11/25/92

Cell: 5

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
17756	5	METHANOL FROM LAB		20.0000 kgs
17833	5	METHANOL 8%, ACETONE 3.3%, METHYLENE CHLORIDE 3.3%, POTASSIUM PHOSPHATE 6.7%, AMMONIUM ACETATE 60.3		15.0000 kgs
17834	5	i-BUTANOL .03%, TOLUENE .16% .2 M AMMONIUM ACETATE 79.81%, 20% ACETONITRILE 20% SOLUTION FROM LAB		14.9000 kgs
17899	5	AEROSOL CANS		85.5000 kgs
18327	5	ACETONITRILE 28%, AMMONIUM ACETATE 52%, METHYLENE CHLORIDE 2.2% SOLUTION FROM LAB		20.0000 kgs
18536	5	ACETONITRILE 20%, METHYLENE CHLORIDE 1.3%, METHANOL .7%, SODIUM HYDROXIDE .007%, AMONIUM ACETATE 26		15.0000 kgs
			Total	170.4000 kgs

9 3 1 1 9 0 3 1 6 0

INVENTORY BY CELL

Cell: 6

REVIEW COPY
(SUBJECT TO CHANGE)
DATE: 11/25/92

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>
18468	6	ASBESTOS SHEETING FROM LAB

<u>DRUM #</u>	<u>VOLUME, KGS</u>
	0.5000 kgs
Total	0.5000 kgs

9 8 1 2 9 0 3 0 1 6 1
INVENTORY BY CELL

Cell: 8

REVIEW COPY
 (SUBJECT TO CHANGE)
 DATE: 11/25/92

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
12788	8	LITHIUM CARBIDE	486L	0.2270 kgs
12789	8	LITHIUM CARBIDE	486L	0.2270 kgs
12790	8	LITHIUM FROM LAB	486L	0.2270 kgs
13083	8	PAINT - SPRAY	13083	40.0000 kgs
13085	8	PAINT CONTAINING STODDARD SOLVENT FROM PLANT MAINTENANCE	342B	40.0000 kgs
13007	8	POLYAMIDE RESIN 45.5%, ABSORBANT 30%, XYLENE 21%, ETHYL BENZENE 3.5% FROM LAB	13007	4.0000 kgs
13809	8	MIXED PAINT WASTE FROM PLANT MAINTENANCE	342B	39.9000 kgs
14253	8	PAINT - WASTE FROM PLANT MAINTENANCE (overpacked)	342B	38.5000 kgs
15202	8	2,4,6-TRINITRORESORCINOL 5%, WATER 47.5% & ETHANOL 47.5% SOLUTION FROM LAB	364L	0.0500 kgs
15795	8	CHOLOROFORM 5.5%, WATER 50%, HEXANE 27.7% & METHYLENE CHLORIDE 16.6% SOLUTION FROM LAB	481L	1.0000 kgs
16506	8	PICRYL CHLORIDE FROM LAB • LABPACK BNW-844	BNW-844	0.0990 kgs
16607	8	BULBS - SODIUM FROM PLANT MAINTENANCE	16607	10.0000 kgs
16657	8	LITHIUM 100% FROM LAB	486L	1.4300 kgs
16658	8	LITHIUM 100% FROM LAB	486L	0.9070 kgs
16659	8	LITHIUM POWDER 100% FROM LAB	486L	1.4300 kgs
16672	8	CALCIUM POWDER 100% FROM LAB	486L	2.9300 kgs

9 3 1 2 9 0 3 1 1 6 2

INVENTORY BY CELL

Cell: 8

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
16677	8	COMMERICAL CALCIUM 100% FROM LAB	486L	0.4200 kgs
16678	8	CALCIUM POWDER 100% FROM LAB	486L	0.2000 kgs
16679	8	CALCIUM POWDER 100% FROM LAB	486L	0.2000 kgs
17022	8	ACETYLENE FROM LAB	341L	1.0000 kgs
17023	8	ACETYLENE FROM LAB	341L	1.0000 kgs
17135	8	PAINT - KRYLON SPRAY AEROSOL 100% FROM LAB	345	1.0000 kgs
17136	8	PAINT - KRYLON SPRAY AEROSOL 100% FROM LAB	345	1.0000 kgs
17137	8	PAINT - KRYLON SPRAY AEROSOL 100% FROM LAB	345	1.0000 kgs
17138	8	PAINT - KRYLON SPRAY AEROSOL 100% FROM LAB	345	1.0000 kgs
17139	8	PAINT - KRYLON SPRAY AEROSOL 100% FROM LAB	345	1.0000 kgs
17145	8	PAINT - PACTRA ENAMEL SPRAY WHITE AEROSOL 100% FROM LAB	345	0.1000 kgs
17146	8	PAINT - PACTRA ENAMEL SPRAY WHITE AEROSOL 100% FROM LAB	345	0.1000 kgs
10635	8	TITANIUM	487L	6.0000 kgs
17245	8	ACETONITRILE 50%, 0.1M TRIETHYLAMINE 1%, WATER 49% SOLUTION FROM LAB	482L	4.0000 kgs
17246	8	ACETONITRILE 50%, 0.1M TRIETHYLAMINE 1%, WATER 49% SOLUTION FROM LAB	482L	4.0000 kgs
17248	8	ACETONITRILE 40%, TRIETHYLAMINE .1%, TRICHLOROACETIC ACID .1%, WATER 60% SOLUTION FROM LAB	482L	4.0000 kgs

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INVENTORY BY CELL

Cell: 8

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
17249	8	ACETONITRILE 50%, TRIFLUOROACETIC ACID .1% SOLUTION FROM LAB	482L	4.0000 kgs
17250	8	ACETONITRILE 50%, TRIFLUOROACETIC ACID .1% SOLUTION FROM LAB	482L	4.0000 kgs
17252	8	METHANOL 40%, ACETIC ACID 10%, CHARCOAL 10%, WATER 40% SOLUTION FROM LAB	484L	4.0000 kgs
17254	8	ACETONITRILE 50%, TRIETHYLAMINE ACETATE 5%, WATER 45% SOLUTION FROM LAB	482L	4.0000 kgs
17255	8	ACETONITRILE 30%, METHANOL 20%, TRIFLUOROACETIC ACID 1%, PHOSPHATE 5% SOLUTION FROM LAB	482L	4.0000 kgs
17257	8	ACETONITRILE 40%, WATER 60% SOLUTION FROM LAB	482L	4.0000 kgs
17258	8	ACETONITRILE 40%, WATER 60% SOLUTION FROM LAB	484L	4.0000 kgs
17269	8	ACETONITRILE 33%, TRIFLUOROACETIC ACID .01%, AMINONAPHTHALENE IN SOIL <.01%, TRICHLOROBENZENE <.01%	482L	3.6900 kgs
17384	8	ALUMINUM 35%, VANADIUM 65% FROM LAB	487L	2.5000 kgs
17388	8	ALUMINUM 50%, VANADIUM 50% FROM LAB	487L	2.0000 kgs
17389	8	ZIRCONIUM HYDRIDE FROM LAB	486L	2.0000 kgs
17392	8	TITANIUM CARBIDE FROM LAB	487L	2.5000 kgs
17393	8	CHROME 22-24%, ALUMINUM 12-14%, YITTRIUM 1%, COBALT 61-65% FROM LAB	487L	1.7000 kgs
17394	8	CHROME 22-24%, ALUMINUM 12-14%, YITTRIUM 1%, COBALT 61-65% FROM LAB	487L	1.7000 kgs
17395	8	CHROME 22-24%, ALUMINUM 12-14%, YITTRIUM 1%, COBALT 61-65% FROM LAB	487L	1.7000 kgs
17396	8	CHROME 22-24%, ALUMINUM 12-14%, YITTRIUM 1%, COBALT 61-65% FROM LAB	487L	1.7000 kgs

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INVENTORY BY CELL

Cell: 8

ITEM #	CELL	WASTE DESCRIPTION	DRUM #	VOLUME, KGS
17413	8	METHYL ETHYL KETONE 15-20%, TOLUENE 25-30%, LEAD PHOSPHITE 1-5%, ANTIMONY TRIOXIDE 5-10% FROM LAB	484L	3.9000 kgs
17414	8	METHYL ETHYL KETONE 15-20%, TOLUENE 25-30%, LEAD PHOSPHITE 1-5%, ANTIMONY TRIOXIDE 5-10% FROM LAB	484L	3.9000 kgs
17415	8	METHYL ETHYL KETONE 15-20%, TOLUENE 25-30%, LEAD PHOSPHITE 1-5%, ANTIMONY TRIOXIDE 5-10% FROM LAB	484L	3.9000 kgs
17416	8	METHYL ETHYL KETONE 15-20%, TOLUENE 25-30%, LEAD PHOSPHITE 1-5%, ANTIMONY TRIOXIDE 5-10% FROM LAB	484L	3.9000 kgs
17420	8	DI-CAMPHOR FROM LAB	487L	2.0000 kgs
17421	8	DI-CAMPHOR FROM LAB	487L	2.0000 kgs
17431	8	TITANIUM POWDER FROM LAB	487L	1.2000 kgs
17432	8	TITANIUM METAL POWDER FROM LAB	487L	9.0000 kgs
17445	8	ATOMIZED ZK60 MAGNESIUM 93%, ZINC 6%, ZIRCONIUM 1% FROM LAB	486L	4.1100 kgs
17454	8	TITANIUM SPONGE POWDER FROM LAB	487L	0.8900 kgs
17512	8	SCINTILLATION COCKTAIL - PSEUDOCUMENE 29%, P-XYLENE 30%, NON-IONIC EMULSIFIER AND FLUORS 41% SOLU	484L	0.5000 kgs
17538	8	NITRIC ACID 33%, METHANOL 67% SOLUTION FROM LAB	481L	1.0000 kgs
17544	8	MAGNESIUM FROM LAB	486L	0.0850 kgs
17586	8	LITHIUM POWDER FROM LAB	486L	0.5500 kgs
17664	8	ACETONITRILE 72%, METHANOL 11%, DICHLOROMETHANE 9%, TETRAHYDROFURAN 5%, PHOSPHORAMIDITES 1%, ACETIC	480L	4.0000 kgs
17665	8	ACETONITRILE 72%, METHANOL 11%, DICHLOROMETHANE 9%, TETRAHYDROFURAN 5%, PHOSPHORAMIDITES 1%, ACETIC	480L	4.0000 kgs

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INVENTORY BY CELL

Cell: 8

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
17666	8	ACETONITRILE 72%, METHANOL 11%, DICHLOROMETHANE 9%, TETRAHYDROFURAN 5%, PHOSPHORAMIDITES 1%, ACETIC	480L	4.0000 kgs
17636	8	ISOPROPYL ALCOHOL 70%, WATER 30% SOLUTION FROM LAB	481L	3.8000 kgs
17637	8	ISOPROPYL ALCOHOL 70%, WATER 30% SOLUTION FROM LAB	480L	3.8000 kgs
17638	8	ISOPROPYL ALCOHOL 70%, WATER 30% SOLUTION FROM LAB	480L	3.8000 kgs
17639	8	ISOPROPYL ALCOHOL 70%, WATER 30% SOLUTION FROM LAB	481L	3.8000 kgs
17640	8	ACETONE 99%, WATER 1% SOLUTION FROM LAB	481L	2.0000 kgs
17710	8	ACETONE 29.4%, METHYLENE CHLORIDE 19.2%, METHANOL 67.5%, 1,1,1-TRICHLOROETHANE 4.2%, TETRAHYDROFURA	481L	3.0000 kgs
17711	8	ZIRCONIUM METAL FROM LAB	487L	0.1000 kgs
17712	8	ZIRCONIUM METAL FROM LAB	487L	0.1000 kgs
17713	8	SODIUM HYDRIDE 80%, MINERAL OIL 20% FROM LAB	486L	0.0400 kgs
17795	8	METHANOL 24.9%, DICHLOROMETHANE 12.1%, ACETONITRILE 5.2%, TETRA HYDROFURAN 4%, CHROMIUM OXIDE .02%,	481L	3.2000 kgs
17835	8	FORMALDEHYDE 38%, METHANOL 15%, WATER 54% SOLUTION FROM LAB	481L	0.5400 kgs
17836	8	FORMALDEHYDE 38%, METHANOL 15%, WATER 54% SOLUTION FROM LAB	481L	0.5400 kgs
17837	8	FORMALDEHYDE 38%, METHANOL 15%, WATER 54% SOLUTION FROM LAB	481L	0.5400 kgs
17838	8	FORMALDEHYDE 38%, METHANOL 15%, WATER 54% SOLUTION FROM LAB	481L	0.5000 kgs
17839	8	FORMALDEHYDE 38%, METHANOL 15%, WATER 54% SOLUTION FROM LAB	482L	0.7600 kgs

9 3 1 2 9 0 3 1 1 6 6

INVENTORY BY CELL

Cell: 8

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
17840	8	FORMALDEHYDE 38%, METHANOL 15%, WATER 54% SOLUTION FROM LAB	482L	0.7600 kgs
17841	8	FORMALDEHYDE 38%, METHANOL 15%, WATER 54% SOLUTION FROM LAB	482L	0.6100 kgs
17842	8	FORMALDEHYDE 38%, METHANOL 15%, WATER 54% SOLUTION FROM LAB	482L	0.6100 kgs
17864	8	RUBBER CEMENT - CONTAINING HEPTANE & ETHYL ALCOHOL SOLUTION FROM LAB	482L	0.8400 kgs
17865	8	RUBBER CEMENT - CONTAINING HEPTANE & ETHYL ALCOHOL SOLUTION FROM LAB	482L	0.8400 kgs
17866	8	RUBBER CEMENT - CONTAINING HEPTANE & ETHYL ALCOHOL SOLUTION FROM LAB	482L	0.8400 kgs
17867	8	RUBBER CEMENT - CONTAINING HEPTANE & ETHYL ALCOHOL SOLUTION FROM LAB	482L	0.8400 kgs
17868	8	RUBBER CEMENT - CONTAINING HEPTANE & ETHYL ALCOHOL SOLUTION FROM LAB	482L	0.8400 kgs
17869	8	RUBBER CEMENT - CONTAINING HEPTANE & ETHYL ALCOHOL SOLUTION FROM LAB	482L	0.8400 kgs
17860	8	SODIUM BOROHYDRIDE FROM LAB	486L	0.0250 kgs
17861	8	SODIUM BOROHYDRIDE FROM LAB	486L	0.0250 kgs
17862	8	SODIUM BOROHYDRIDE FROM LAB	486L	0.1000 kgs
17863	8	SODIUM BOROHYDRIDE FROM LAB	486L	0.1000 kgs
17956	8	FISHER ACTIVATED CHARCOAL CHEMICAL INVENTORY #26151 FROM LAB	487L	2.2000 kgs
17909	8	METHANOL 45%, WATER 45%, ACETIC ACID 10% SOLUTION FROM LAB	481L	4.0000 kgs
17910	8	METHANOL 45%, WATER 45%, ACETIC ACID 10% SOLUTION FROM LAB	481L	4.0000 kgs

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INVENTORY BY CELL

Cell: 8

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
17911	8	METHANOL 45%, WATER 45%, ACETIC ACID 10% SOLUTION FROM LAB	481L	4.0000 kgs
17912	8	METHANOL 45%, WATER 45%, ACETIC ACID 10% SOLUTION FROM LAB	481L	4.0000 kgs
17914	8	ACETONITRILE 50%, TRIETHYLAMINE .1%, WATER 49% SOLUTION FROM LAB	480L	4.0000 kgs
17915	8	ACETONITRILE 50%, TRIETHYLAMINE .1%, WATER 49% SOLUTION FROM LAB	480L	4.0000 kgs
17916	8	ACETONITRILE 50%, TRIETHYLAMINE .1%, WATER 49% SOLUTION FROM LAB	480L	2.5000 kgs
17917	8	ACETONITRILE 50%, TRIETHYLAMINE .1%, WATER 49% SOLUTION FROM LAB	480L	2.5000 kgs
17918	8	ACETONITRILE 50%, TRIETHYLAMINE .1%, WATER 49% SOLUTION FROM LAB	480L	2.5000 kgs
17919	8	ACETONITRILE 50%, TRIETHYLAMINE .1%, WATER 49% SOLUTION FROM LAB	480L	2.5000 kgs
17920	8	ACETONITRILE 50%, TRIETHYLAMINE .1%, WATER 49% SOLUTION FROM LAB	481L	2.5000 kgs
17921	8	ACETONITRILE 50%, TRIETHYLAMINE .1%, WATER 49% SOLUTION FROM LAB	480L	2.5000 kgs
17922	8	ACETONITRILE 50%, TRIETHYLAMINE .1%, WATER 49% SOLUTION FROM LAB	480L	2.5000 kgs
17923	8	ACETONITRILE 50%, TRIETHYLAMINE .1%, WATER 49% SOLUTION FROM LAB	480L	2.5000 kgs
17924	8	Na PHOSPHATE 20 mM, METHANOL 30%, WATER 65% SOLUTION FROM LAB	480L	2.5000 kgs
17905	8	ACETONITRILE 72%, METHANOL 11%, DICHLOROMETHANE 9%, TETRAHYDROFURAN 5%, PHOSPHORAMIDITES 1%, ACETIC	481L	4.0000 kgs
18132	8	CARBON FROM LAB	487L	0.4540 kgs
18133	8	CARBON FROM LAB	487L	0.4540 kgs

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INVENTORY BY CELL

Cell: 8

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18134	8	CARBON FROM LAB	487L	0.4540 kgs
18298	8	ACETONE, METHYLENE CHLORIDE, (PYRIDINE), BENZENE, CHLOROFORM FROM LAB - MRC-182	MRC-182	19.0000 kgs
18304	8	ACETONITRILE 1.05%, METHANOL 67.78%, HEXANE 1.05%, TOLUENE 1.26%, METHYLENE CHLORIDE 28.45%, BALANC	481L	15.0000 kgs
18204	8	MAGNESIUM METAL POWDER FROM LAB	486L	0.1080 kgs
18331	8	TETRAHYDROFURAN FROM LAB	483L	3.8000 kgs
18354	8	TETRAHYDROFURAN 64.4%, EPOXY NOVALAC 30.3%, METHYL ETHYL KETONE 5.3% SOLUTION FROM LAB	483L	0.0283 kgs
18355	8	TETRAHYDROFURAN 64.4%, EPOXY NOVALAC 30.3%, METHYL ETHYL KETONE 5.3% SOLUTION FROM LAB	483L	0.0283 kgs
18356	8	TETRAHYDROFURAN 64.4%, EPOXY NOVALAC 30.3%, METHYL ETHYL KETONE 5.3% SOLUTION FROM LAB	483L	0.0283 kgs
18357	8	TETRAHYDROFURAN 64.4%, EPOXY NOVALAC 30.3%, METHYL ETHYL KETONE 5.3% SOLUTION FROM LAB	483L	0.0283 kgs
18358	8	TETRAHYDROFURAN 90%, 1,2,4,5-BENZENE TETRACARBOXYLIC ANHYDRIDE 10% SOLUTION FROM LAB	483L	0.0283 kgs
18359	8	TETRAHYDROFURAN 90%, 1,2,4,5-BENZENE TETRACARBOXYLIC ANHYDRIDE 10% SOLUTION FROM LAB	483L	0.0283 kgs
18360	8	TETRAHYDROFURAN 90%, 1,2,4,5-BENZENE TETRACARBOXYLIC ANHYDRIDE 10% SOLUTION FROM LAB	483L	0.0283 kgs
18361	8	TETRAHYDROFURAN 90%, 1,2,4,5-BENZENE TETRACARBOXYLIC ANHYDRIDE 10% SOLUTION FROM LAB	483L	0.0283 kgs
18362	8	XYLENE 38-44%, ETHYL BENZENE 7-12%, OIL MODIFIED POLYARETHANE 45-55% SOLUTION FROM LAB	482L	0.0283 kgs
18363	8	XYLENE 38-44%, ETHYL BENZENE 7-12%, OIL MODIFIED POLYARETHANE 45-55% SOLUTION FROM LAB	482L	0.0283 kgs
18364	8	XYLENE 38-44%, ETHYL BENZENE 7-12%, OIL MODIFIED POLYARETHANE 45-55% SOLUTION FROM LAB	482L	0.0283 kgs

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INVENTORY BY CELL

Cell: 8

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
18365	8	METHYL ETHYL KETONE 85%, CABON TETRACHLORIDE <1%, PHENOL <1% SOLUTION FROM LAB	482L	0.0283 kgs
18366	8	METHYL ETHYL KETONE 85%, CABON TETRACHLORIDE <1%, PHENOL <1% SOLUTION FROM LAB	482L	0.0283 kgs
18367	8	METHYL ETHYL KETONE 85%, CABON TETRACHLORIDE <1%, PHENOL <1% SOLUTION FROM LAB	482L	0.0283 kgs
18368	8	METHYL ETHYL KETONE 85%, CABON TETRACHLORIDE <1%, PHENOL <1% SOLUTION FROM LAB	482L	0.0283 kgs
18369	8	VM&P NAPHTHA 10%, XYLENE 25%, 3140 RTV (INFO ATTACHED TO MSDS) (PROPRIETARY) 65% FROM LAB	482L	0.0283 kgs
18370	8	VM&P NAPHTHA 10%, XYLENE 25%, 3140 RTV (INFO ATTACHED TO MSDS) (PROPRIETARY) 65% FROM LAB	482L	0.0283 kgs
18371	8	VM&P NAPHTHA 10%, XYLENE 25%, 3140 RTV (INFO ATTACHED TO MSDS) (PROPRIETARY) 65% FROM LAB	482L	0.0283 kgs
18372	8	TOLUENE 50%, TITANIUM DIOXIDE 17%, METHYL ETHYL KETONE 15%, ACRYLIC ESTER RESIN 8% FROM LAB	482L	0.0283 kgs
18373	8	TOLUENE 50%, TITANIUM DIOXIDE 17%, METHYL ETHYL KETONE 15%, ACRYLIC ESTER RESIN 8% FROM LAB	482L	0.0283 kgs
18374	8	TOLUENE 50%, TITANIUM DIOXIDE 17%, METHYL ETHYL KETONE 15%, ACRYLIC ESTER RESIN 8% FROM LAB	482L	0.0283 kgs
18391	8	PETROLEUM DITILLATES FROM LAB • MRC-230	MRC-230	0.3300 kgs
18392	8	ETHYL ACETATE FROM LAB • MRC-231	MRC-231	1.9800 kgs
18396	8	ETHANOL, ETHYL ACETATE FROM LAB • MRC-223	MRC-223	2.9700 kgs
18413	8	ETHYL ETHER FROM LAB	483L	0.4000 kgs
18414	8	ETHYL ETHER FROM LAB	483L	0.5000 kgs
18422	8	METHANOL 85%, DICHLOROMETHANE 6.3%, 1-BUTANOL 1.1%, 2-PROPANONE 1.1%, BENZENE 1.1%, CARBON DISULFID	483L	1.0000 kgs

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INVENTORY BY CELL

Cell: 8

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18425	8	METHANOL 24%, HEXANE 10%, 1,1,1-TRICHLOROETHANE 53%, TETRAHYDROFURAN 13% SOLUTION FROM LAB	483L	1.0100 kgs
18426	8	WATER 36.7%, ACETONITRILE 30.8%, TETRAHYDROFURAN 32.5% SOLUTION FROM LAB	483L	0.6800 kgs
18758	8	ACETONITRILE 60%, WATER 40%, POLYAROMATIC HYDROCARBON STANDARD TRACE SOLUTION FROM LAB	482L	3.5000 kgs
18431	8	METHANOL FROM LAB	18431	17.3200 kgs
18432	8	METHANOL FROM LAB	18432	17.3200 kgs
18440	8	TOLUENE FROM LAB	482L	4.0000 kgs
18444	8	ETHANOL 60%, SODIUM ACETATE .032%, SODIUM CHLORIDE .005%, WATER 40% SOLUTION FROM LAB	481L	6.0000 kgs
18445	8	ETHANOL 60%, SODIUM ACETATE .032%, SODIUM CHLORIDE .005%, WATER 40% SOLUTION FROM LAB	481L	6.0000 kgs
18447	8	AMYL ACETATE 96.6%, SODIUM TETRAPHENYL BORON 3.4% SOLUTION FROM LAB	482L	1.0000 kgs
18512	8	ACETONITRILE 72%, METHANOL 11%, DICHLOROMETHANE 95, TETRAHYDROFURAN 5%, PHOSPHORAMIDITES 1%, ACETIC	481L	4.0000 kgs
18517	8	ISOPROPYL ALCOHOL 70%, WATER 30% SOLUTION FROM LAB	482L	3.4000 kgs
18518	8	ISOPROPYL ALCOHOL 70%, WATER 30% SOLUTION FROM LAB	482L	3.4000 kgs
18519	8	ISOPROPYL ALCOHOL 70%, WATER 30% SOLUTION FROM LAB	482L	3.4000 kgs
18520	8	ISOPROPYL ALCOHOL 70%, WATER 30% SOLUTION FROM LAB	482L	3.4000 kgs
18521	8	ISOPROPYL ALCOHOL 70%, WATER 30% SOLUTION FROM LAB	481L	0.9000 kgs
18522	8	ACETONE FROM LAB	481L	1.0000 kgs

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INVENTORY BY CELL

Cell: 8

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18523	8	ACETONE FROM LAB	481L	0.2000 kgs
18526	8	ACETONE FROM LAB	481L	1.0000 kgs
18538	8	ACETONITRILE 72%, METHANOL 11%, DICHLOROMETHANE 9%, TETRAHYDROFURAN 5%, PHOSPHORAMIDITES 1%, ACETIC	481L	4.0000 kgs
18542	8	HEXANE 48%, CARBON TETRACHLORIDE 21%, ISOOCTANE 15%, METHANOL 6%, DECANE 4%, ACETONITRILE 3%, METHY	480L	1.6000 kgs
18543	8	METHYLENE CHLORIDE 43%, HEXANE 41%, ACETONE 12%, METHANOL 2%, CARBON TETRACHLORIDE 2% SOLUTION FROM	480L	1.9000 kgs
18548	8	ALUMINUM 3.4%, VANADIUM 8.2%, CHROMIUM 5.8%, MOLYBDENUM 4.1%, ZIRCONIUM 40%, TITANIUM 74.5% SOLUTIO	18548	41.0000 kgs
18594	8	MAGNESIUM WASTE TURNINGS/FINES FROM PLANT MAINTENANCE	18594	22.0000 kgs
18595	8	TITANIUM WASTE TURNINGS/FINES FROM PLANT MAINTENANCE	18595	29.0000 kgs
18607	8	KLEAN STRIP AEROSOL PAINT REMOVER FROM PLANT MAINTENANCE	18607	11.5000 kgs
17372	8	TETRAHYDROFURAN 100%, FROM LAB MRC-93 LABPACK	483L	8.0000 kgs
			Total	633.4363 kgs

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INVENTORY BY CELL

Cell: 11

REVIEW COPY
(SUBJECT TO CHANGE)
DATE: 11/25/92

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
8676	11	ETHYLENE OXIDE	8676	0.2268 kgs
9773	11	FREON	470L	0.4540 kgs
9865	11	P-CHLOROMERCURIBENZOATE	432L	0.0010 kgs
10700	11	TUNGSTEN HEXAFLUORIDE	10700	1.5000 kgs
10701	11	MOLYBDENUM HEXAFLUORIDE	10701	1.0000 kgs
11882	11	CARBON MONOXIDE	11882	1.0000 kgs
12174	11	MERCURIC SULFATE	432L	0.4540 kgs
13810	11	PAINT WASTE FROM PLANT MAINTENANCE		105.2000 kgs
13811	11	PAINT WASTE FROM PLANT MAINTENANCE		65.3000 kgs
13812	11	PAINT WASTE FROM PLANT MAINTENANCE		67.1000 kgs
13817	11	PAINT BOOTH FLOOR PAPER FROM PLANT MAINTENANCE		38.1000 kgs
14250	11	PAINT WASTE FROM PLANT MAINTENANCE		81.5000 kgs
14252	11	PAINT WASTE FROM PLANT MAINTENANCE		39.0000 kgs
13844	11	CONTAMINATED CURED GROUT FROM LAB		97.0000 kgs
14158	11	MERCUROUS CHLORIDE FROM LAB	432L	0.5000 kgs
13159	11	PAINT WASTE FROM LAB		64.0000 kgs

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INVENTORY BY CELL

Cell: 11

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
13307	11	MERCUROUS CHLORIDE FROM LAB	432L	0.4500 kgs
14556	11	ALUMINUM POWDER FROM LAB		30.0000 kgs
14655	11	ALUMINUM POWDER FROM LAB		2.0000 kgs
14557	11	ALUMINA FROM LAB		45.3515 kgs
14723	11	ALUMINA FROM LAB		45.3515 kgs
14724	11	ALUMINA FROM LAB		45.3515 kgs
14656	11	ALUMINA FROM LAB		20.0000 kgs
14657	11	ALUMINA FROM LAB		20.0000 kgs
14658	11	ALUMINA FROM LAB		20.0000 kgs
14659	11	ALUMINA FROM LAB		20.0000 kgs
14660	11	ALUMINA FROM LAB		20.0000 kgs
14661	11	ALUMINA FROM LAB		20.0000 kgs
14662	11	ALUMINA FROM LAB		20.0000 kgs
14719	11	ZIRCONIUM OXIDE FROM LAB		50.0000 kgs
14925	11	MERCURIC CHLORIDE	BNW-648	3.7500 kgs
14996	11	SODIUM CARBONATE 99.9% INORGANIC MIX FROM LAB	432L	0.0150 kgs
15633	11	NON-RCRA WASTE SOLID FROM LAB	BNW-720	14.2320 kgs
15634	11	NON-RCRA LIQUID FROM LAB	BNW-722	0.1000 kgs
15775	11	NON-RCRA WASTE LIQUID SOLUTION FROM LAB	BNW-738	75.0000 kgs
15718	11	LAB PACK CONTAINING SILVER NITRATE, FORMALDEHYDE, CHROME, ACETONE, LEAD NITRATE, SELENIUM OXIDE, ME	BNW-735	16.8000 kgs
16559	11	BALLASTS - PCB >500ppm (small) FROM PLANT MAINTENANCE • BULK MRC-013	MRC-013	126.0000 kgs
16436	11	FIXER - KODAK - SODIUM THIOSULFATE 14%, AMMONIUM ALUM 2%, SODIUM METABISULFATE 1%, SODIUM ACETATE 1	477L	20.0000 kgs

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INVENTORY BY CELL

Cell: 11

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM#</u>	<u>VOLUME, KGS</u>
16222	11	MERCUROUS CHLORIDE 100% FROM LAB	432L	0.1330 kgs
16932	11	METHANOL 5%, WATER 95% FROM LAB • BULK BNW-327	BNW-327	160.0000 kgs
16031	11	TRICHLOROTRIFLUORO ETHANE 95%, METHANOL 5% FROM LAB • BULK BNW-818B	491L	64.0000 kgs
17021	11	METHYLMERCAPTAN FROM LAB	17021	0.2000 kgs
17025	11	NITROGEN FROM LAB	471L	0.4540 kgs
17026	11	PERFLUORODIMETHYL CYCLOHEXANE 1 ppb, AIR 100% FROM LAB	17026	0.1000 kgs
17078	11	PENTACHLOROPHENOL FROM LAB • LABPACK SIG-111	SIG-111	0.0010 kgs
17055	11	FIXER - KODAK - CONTAINING SODIUM THIOSULFATE 14%, AMMONIUM ALUM 2%, SODIUM METABISULFATE 1%, SODIUM	476L	20.0000 kgs
17132	11	METHANOL 5%, WATER 95% SOLUTION FROM LAB • MRC-020	MRC-020	113.3787 kgs
17229	11	ARSENIC <20 ppm, LEAD <10 ppm, HALOGENATED HYDROCARBON 220,000 ppm SOLUTION FROM LAB • MRC-009	MRC-009	39.0000 kgs
17230	11	ARSENIC <20 ppm, LEAD <10 ppm, HALOGENATED HYDROCARBON 220,000 ppm SOLUTION FROM LAB • MRC-010	MRC-010	121.0000 kgs
17316	11	MERCURY (III) OXIDE FROM LAB • BNW-756 LABPACK	BNW-756	20.0000 kgs
17331	11	NICOTINE FROM LAB • MRC-102	MRC-102	1.0000 kgs
17326	11	UNANADIUM PENTOXIDE FROM LAB • MRC-101	MRC-101	0.5000 kgs
17327	11	CHROMIUM FROM LAB • MRC-60	MRC-60	4.5000 kgs
17261	11	AMMONIUM HYDROXIDE .5%, WATER 99.5% SOLUTION FROM LAB	494L	2.0000 kgs

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INVENTORY BY CELL

Cell: 11

ITEM #	CELL	WASTE DESCRIPTION	DRUM #	VOLUME, KGS
17270	11	DICHLOROBENZENE <.001%, TETRACHLOROBENZENE <.001%, RHODAMINE B DYE <.002%, CALCIUM PHOSPHATE BUFFER	478L	3.8600 kgs
17365	11	1-NITROPYRENE 1% FROM LAB • MRC-116 LABPACK	MRC-116	50.0000 kgs
17358	11	SODIUM FERRO-NICKEL CYANIDE SOLUTION FROM LAB • MRC-087 LABPACK	MRC-087	7.0000 kgs
17462	11	AQUA QUENCH 251 - CONTAINING SODIUM NITRATE 1 - 10%, WATER 90 - 99% SOLUTION FROM LAB	17462	183.7100 kgs
17463	11	UCON QUENCHENT A - CONTAINING TRADE SECRET POLYALKYLENE GLYCOL <55%, TRADE SECRET INORGANIC NITRILE	17463	280.7900 kgs
17464	11	UCON QUENCHENT A - CONTAINING TRADE SECRET POLY ALKYLENE GLYCOL <55%, TRADE SECRET INORGANIC NITRIL	17464	280.7900 kgs
17488	11	SODIUM PHOSPHATE 2.07%, PYRIDINE 1.5%, SODIUM HYDROXIDE .5%, BARBITURIC ACID .3%, HYDROCHLORIC ACID	479L	20.0000 kgs
17536	11	FIXER - KODAK - SODIUM THIOSULFATE 14%, AMMONIUM ALUM 2%, SODIUM METABISULFATE 1%, SODIUM ACETATE 1	479L	24.0000 kgs
17537	11	DEVELOPER - KODAK D-19 - SODIUM SULFITE 9%, SODIUM CARBONATE 5%, HYDROQUINONE 1%, METHYLAMMONIUMPHE	478L	24.0000 kgs
17539	11	FIXER - KODAK - SODIUM THIOSULFATE 14%, AMMONIUM ALUM 2%, SODIUM METABISULFATE 1%, SODIUM ACETATE 1	477L	20.0000 kgs
17540	11	DEVELOPER - KODAK D-19 - SODIUM SULFITE 9%, SODIUM CARBONATE 5%, HYDROQUINONE 1%, METHYLAMMONIUMPHE	476L	20.0000 kgs
17616	11	PUMP OIL 100% WITH BARIUM 1800 pp, PCB 5 ppm, LEAD 20 ppm FROM LAB	474L	6.8000 kgs
17617	11	OIL WITH SELENIUM 1 ppm, LEAD 32 ppm, HALOGENATED HYDROCARBONS 1,434 ppm FROM LAB	478L	0.5000 kgs
17618	11	OIL WITH LEAD 38 ppm, HALOGENATED HYDROCARBONS 6,878 ppm FROM LAB	474L	13.6000 kgs
17630	11	TRIMSOL (NON HAZARDOUS PROPRIETARY MIXTURE OF PETROLEUM OIL, NON-IONIC SURFACTANTS, CHLORINATE PARA	17630	44.0000 kgs
17633	11	LEAD FROM PLANT MAINTENANCE	17633	23.5000 kgs

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INVENTORY BY CELL

Cell: 11

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
17635	11	BALLASTS - PCB >500 ppm (SMALL) FROM PLANT MAINTENANCE	17635	354.0000 kgs
17668	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
17669	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
17670	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
17671	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	469L	3.8000 kgs
17672	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	469L	3.8000 kgs
17673	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	469L	3.8000 kgs
17674	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	469L	3.8000 kgs
17675	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	469L	3.8000 kgs
17676	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	469L	3.8000 kgs
17677	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
17678	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
17679	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
16597	11	OIL, USED 100% FROM PLANT MAINTENANCE	16597	182.5000 kgs
16595	11	OIL, USED 100% FROM PLANT MAINTENANCE	16595	200.5000 kgs
16596	11	OIL, USED 100% FROM PLANT MAINTENANCE	16596	193.5000 kgs

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INVENTORY BY CELL

Cell: 11

ITEM #	CELL	WASTE DESCRIPTION	DRUM #	VOLUME, KGS
16594	11	OIL, USED 100% FROM PLANT MAINTENANCE	16594	234.0000 kgs
17701	11	SOIL 96% CONTAMINATED WITH PETROLEUM 4% FROM LAB	466L	32.0000 kgs
17702	11	SOIL 96% CONTAMINATED WITH PETROLEUM 4% FROM LAB	466L	32.0000 kgs
17703	11	SOIL 96% CONTAMINATED WITH PETROLEUM 4% FROM LAB	466L	32.0000 kgs
17735	11	OILS (LEAD, CADMIUM, SELENIUM) FROM LAB • MRC-174 BULK	MRC-174	30.8390 kgs
17752	11	1-NITROPYRENE FROM LAB • MRC-132	MRC-132	0.0000 kgs
17754	11	BALLASTS - PCB >500 ppm (SMALL) FROM PLANT MAINTENANCE	17754	54.5000 kgs
17798	11	ALUMINUM .02%, SODIUM 1.15%, CHLORINE .077%, PHOSPHOROUS .025%, NITRATE 1.75%, CHROMIUM .0006%, (CA	478L	18.0000 kgs
17757	11	METHANOL 5%, SODUM HYDROXIDE .001%, WATER 95% SOLUTION FROM LAB	475L	20.0000 kgs
17887	11	MERCURY METALLIC FROM LAB	456L	0.4000 kgs
17888	11	MERCURY SPILL CLEANUP FROM LAB	457L	0.0500 kgs
17988	11	1,4-DICHLOROBENZENE .000065%, 2,4-DINITROTOLUENE .0000036%, ENDRIN .000046%, WATER <99.9% SOLUTION	478L	2.0000 kgs
17989	11	1,4-DICHLOROBENZENE .000065%, 2,4-DINITROTOLUENE .0000036%, ENDRIN .000046%, WATER <99.9% SOLUTION	478L	2.0000 kgs
17990	11	1,4-DICHLOROBENZENE .000065%, 2,4-DINITROTOLUENE .0000036%, ENDRIN .000046%, WATER <99.9% SOLUTION	478L	2.0000 kgs
17991	11	1,4-DICHLOROBENZENE .000065%, 2,4-DINITROTOLUENE .0000036%, ENDRIN .000046%, WATER <99.9% SOLUTION	478L	2.0000 kgs
18216	11	METHANOL FROM LAB • MRC-143 BULK	488L	64.0000 kgs

INVENTORY BY CELL

Cell: 11

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
17903	11	BALLASTS - PCB >500 ppm (SMALL) FROM PLANT MAINTENANCE	17903	361.0000 kgs
17895	11	PAINT BOOTH FILTERS FROM PLANT MAINTENANCE	17895	30.0000 kgs
17896	11	BALLAST - NON PCB FROM PLANT MAINTENANCE	17896	380.5000 kgs
18152	11	MECHANICAL PUMP OIL - CONTAM. W/ CADMIUM 3.4 ppm, METHYLENE CHLORIDE 11.5 ppm, TOLUENE 12.9 ppm	473L	1.0000 kgs
18153	11	MECHANICAL PUMP OIL - CONTAM. W/ CADMIUM 5.5 ppm, METHYLENE CHLORIDE 6.6 ppm, TOLUENE 5.1 ppm	473L	2.0000 kgs
18154	11	MECHANICAL PUMP OIL - CONTAMINATED WITH CADMIUM <1 ppm, TOLUENE 11.1 ppm FROM LAB	473L	19.0000 kgs
18155	11	MECHANICAL PUMP OIL - CONTAM. W/ CADMIUM 5 ppm, METHYLENE CHLORIDE 5.4 ppm, TOLUENE 26 ppm	473L	19.0000 kgs
18156	11	MECHANICAL PUMP OIL - CONTAM. W/ CADMIUM <1 ppm, METHYLENE CHLORIDE 7.2 ppm, TOLUENE 33 ppm	473L	19.0000 kgs
18149	11	CAST IRON 90%, LEAD 10% FROM LAB	18149	178.8000 kgs
18150	11	CAST IRON 90%, LEAD 10% FROM LAB	18150	178.8000 kgs
18151	11	CAST IRON 90%, LEAD 10% FROM LAB	18151	178.8000 kgs
18288	11	CAST IRON 90%, LEAD 10% FROM LAB	18288	178.8000 kgs
18289	11	CAST IRON 90%, LEAD 10% FROM LAB	18289	178.8000 kgs
18291	11	CHROME 6, SILVER, PRYRIDINIUM CHLOROCHROMATE FROM LAB • MRC-208 LABPACK	MRC-208	50.8500 kgs
18297	11	CHROME, LEAD, SILVER FROM LAB • MRC-204	MRC-204	79.0000 kgs
18318	11	METHANOL 5%, SODIUM HYDROXIDE .001%, WATER 95% SOLUUTION FROM LAB	475L	20.0000 kgs

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INVENTORY BY CELL

Cell: 11

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
18325	11	FORMALDEHYDE FROM LAB • MRC-218 BULK	MRC-218	113.0000 kgs
18326	11	BALLASTS - PCB >500 PPM (SMALL) FROM PLANT MAINTENANCE • MRC-217 BULK	MRC-217	200.0000 kgs
18390	11	TOLUENE, m-XYLENE FROM LAB • MRC-048	MRC-048	3.8000 kgs
18400	11	BALLASTS - PCB >500 ppm (SMALL) FROM LAB	18400	177.0000 kgs
18408	11	SILVER NITRATE .005%, WATER 99% SOLUTION FROM LAB	478L	0.2000 kgs
18427	11	PETROLEUM LUBRICATING OIL 100%, BARIUM 2,000 - 3,000 ppm FROM LAB	474L	17.5000 kgs
18428	11	PETROLEUM LUBRICATING OIL 100%, BARIUM 2,000 - 3,000 ppm FROM LAB	474L	17.5000 kgs
18448	11	POTASSIUM NITRATE .8%, WATER 99.2% SOLUTION FROM LAB	494L	1.0000 kgs
18449	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
18450	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	469L	3.8000 kgs
18451	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
18452	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	469L	3.8000 kgs
18453	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
18454	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	469L	3.8000 kgs
18455	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	469L	3.8000 kgs
18456	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs

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INVENTORY BY CELL

Cell: 11

<u>ITEM#</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18457	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
18458	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
18459	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
18460	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
18461	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
18462	11	AMMONIA 26%, WATER 74% SOLUTION FROM LAB	468L	3.8000 kgs
18466	11	NON REGULATED AQUEOUS WASTE WITH WATER 20.9% SOLUTION FROM LAB (pH=4.0) INCLUDING EUROPIUM NITRATE	494L	8.0000 kgs
18477	11	1 PHENYL-1-XYLYETHANE <75%, NONYPHENOXYPOLYETHOXYETHANOL <25%, 2,25-DIPHENYLOXAZOLE <1% SOLUTION FR	494L	3.8000 kgs
18478	11	1 PHENYL-1-XYLYETHANE <75%, NONYPHENOXYPOLYETHOXYETHANOL <25%, 2,25-DIPHENYLOXAZOLE <1% SOLUTION FR	494L	3.8000 kgs
18479	11	1 PHENYL-1-XYLYETHANE <75%, NONYPHENOXYPOLYETHOXYETHANOL <25%, 2,25-DIPHENYLOXAZOLE <1% SOLUTION FR	494L	3.8000 kgs
18487	11	METHANOL 5%, WATER 95%, TWEEN <1%, TRIFLURIN <.01% SOLUTION FROM LAB • DEBULK FROM MRC-20	18487	60.8000 kgs
18488	11	METHANOL 5%, WATER 95%, TWEEN <1%, TRIFLURIN <.01% SOLUTION FROM LAB • DEBULK FROM MRC-20	18488	60.8000 kgs
18489	11	METHANOL 5%, WATER 95%, TWEEN <1%, TRIFLURIN <.01% SOLUTION FROM LAB • DEBULK FROM MRC-20	18489	15.2000 kgs
18490	11	METHANOL 5%, WATER 95%, TWEEN <1%, TRIFLURIN <.01% SOLUTION FROM LAB • DEBULK FROM BNW-827	18490	61.0000 kgs
18491	11	METHANOL 5%, WATER 95%, TWEEN <1%, TRIFLURIN <.01% SOLUTION FROM LAB • DEBULK FROM BNW-827	18491	61.0000 kgs
18492	11	METHANOL 5%, WATER 95%, TWEEN <1%, TRIFLURIN <.01% SOLUTION FROM LAB • DEBULK FROM BNW-827	18492	61.0000 kgs

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INVENTORY BY CELL

Cell: 11

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
18493	11	METHANOL 5%, WATER 95%, TWEEN <1%, TRIFLURIN <.01% SOLUTION FROM LAB • DEBULK FROM BNW-827	18493	8.0000 kgs
18482	11	BIO RAD RESIN AG 11A.8 • TAKEN FROM MRC-106		0.5000 kgs
18483	11	MANGANESE DICHLORIDE .002%, WATER 99.99% SOLUTION FROM LAB • TAKEN FROM MRC-047		1.0000 kgs
18484	11	LINDANE FROM LAB • TAKEN OUT OF SIG-105		0.0010 kgs
18486	11	FREON 14 IN 14" LECTURE BOTTLE FROM LAB	472L	0.0005 kgs
18471	11	WATER 97%, AMMONIUM ACETATE 2%, POTASSIUM PHOSPHATE 1%, COPPER TRACE, EDTA TRACE SOLUTION FROM LAB	494L	4.0000 kgs
18545	11	SODIUM SULFITE 9%, SODIUM CARBONATE 5%, HYDROQUINONE 1%, METHYL LAMINOPHENOL SULFATE 1%, WATER 84%	477L	24.0000 kgs
18546	11	SODIUM THIOSULFATE 14%, AMMONIUM ALUM 2%, SODIUM METABISULFATE 1%, SODIUM ACETATE 1%, BORIC ANHYDRI	476L	24.0000 kgs
18547	11	PROPYLENE GLYCOL 30%, TERTIARY-OCTYLPHENOXY POLYETHYL ALCOHOL 5%, WATER 65% SOLUTION FROM LAB	494L	20.0000 kgs
18593	11	PAINT BOOTH FLOOR PAPER WASTE FROM PLANT MAINTENANCE	18593	31.5000 kgs
18597	11	FLUORESCENT LIGHT TUBES - CRUSHED W/3 PPM MERCURY FROM PLANT MAINTENANCE	18597	162.0000 kgs
18598	11	SPILL CLEAN-UP MATERIALS WITH ALIPHODIC PETROLEUM DISTILLANTS 20%, VERMICULITE 80% FROM PLANT MAINT	18598	37.5000 kgs
18599	11	ETHYLENE GLYCOL SPILL CLEAN-UP MATERIAL WASTE FROM PLANT MAINTENANCE	18599	8.5000 kgs
18601	11	ASBESTOS WASTE FROM PLANT MAINTENANCE	18601	54.0000 kgs
18602	11	FLUORESCENT LIGHT TUBES - CRUSHED W/3 ppm MERCURY FROM PLANT MAINTENANCE	18602	165.5000 kgs
18605	11	BALLAST - PCB >500 ppm (SMALL) FROM PLANT MAINTENANCE	18605	342.0000 kgs

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INVENTORY BY CELL

Cell: 11

<u>ITEM#</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM#</u>	<u>VOLUME, KGS</u>
18647	11	POTASSIUM PERMANGANATE 1.73%, WATER 98.27% SOLUTION FROM LAB	494L	1.0000 kgs
18648	11	IODINE SOLUTION 2.5%, WATER 97.5% SOLUTION FROM LAB	494L	1.7000 kgs
18649	11	POTASSIUM THIOCYNATE 1%, WATER 99% SOLUTION FROM LAB	494L	1.0000 kgs
18710	11	DIMETHYL SULFOXIDE FROM LAB	494L	0.9460 kgs
18745	11	MINERAL OIL FROM LAB	494L	3.8000 kgs
18675	11	GLYCERIN FROM LAB	494L	0.4500 kgs
18609	11	WATER 95.30%, ACETONE 2.47%, METHYL MERCAPTIN .01%, TRICHLOROETHANE .02%, PHENOL .98%, CRESOL 1.13%	MRC-280	20.0000 kgs
			Total	7936.5905 kgs

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INVENTORY BY CELL

Cell: 12

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<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
10617	12	BATTERIES - ALKALINE	10617	15.0000 kgs
12609	12	DEHA 2 - NITRIC<15%, WATER>80%, FERRIC NITRATE<5%, INFORMATION FROM MSDS	465L	0.2000 kgs
12381	12	BATTERIES - ALKALINE	12381	160.0000 kgs
12399	12	BATTERIES - ALKALINE	12399	75.0000 kgs
12658	12	BATTERIES - ALKALINE	12658	148.0000 kgs
13087	12	BATTERIES - ALKALINE	13087	30.0000 kgs
13089	12	BATTERIES - ALKALINE	13089	130.0000 kgs
13095	12	BATTERIES - ALKALINE	13095	125.0000 kgs
13099	12	BATTERIES - ALKALINE	13099	22.0000 kgs
13793	12	BATTERIES - ALKALINE FROM PLANT MAINTENANCE	13793	118.8000 kgs
14251	12	BATTERIES - ALKALINE FROM PLANT MAINTENANCE	14251	136.5000 kgs
14652	12	MERCURY NITRATE FROM LAB	SEQ-038	3.1746 kgs
14591	12	BATTERIES - ALKALINE FROM PLANT MAINTENANCE	14591	130.0000 kgs
14967	12	BATTERIES - ALKALINE FROM PLANT MAINTENANCE	14967	132.5000 kgs
15215	12	BATTERIES - ALKALINE FROM PLANT MAINTENANCE	15215	119.0000 kgs
15754	12	BATTERIES - ALKALINE FROM PLANT MAINTENANCE	15754	114.0000 kgs

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INVENTORY BY CELL

Cell: 12

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
15750	12	BATTERIES ALKALINE 100% FROM PLANT	15750	145.5000 kgs
15803	12	HAZARDOUS WASTE SOLID FROM LAB	BNW-743	21.0000 kgs
13795	12	BATTERIES - ALKALINE FROM PLANT MAINTENANCE	13795	132.4000 kgs
15990	12	MERCURIC NITRATE FROM LAB • LABPACK BNW-770	BNW-770	0.2000 kgs
15992	12	LABPACK CONTAINING BATTERIES ALKALINE, WET FROM LAB	BNW-810L	70.0000 kgs
16525	12	BATTERIES - ALKALINE CONTAINING POTASSIUM HYDROXIDE FROM LAB	16525	6.8027 kgs
16014	12	BATTERIES - ALKALINE CONTAINING POTASSIUM HYDROXIDE 5%, MERCURY <0.1% FROM PLANT MAINTENANCE	16014	141.5000 kgs
16601	12	BATTERIES, ALKALINE FROM PLANT MAINTENANCE	16601	148.0000 kgs
16612	12	BATTERIES - CONTAINING ALKALINE FROM PLANT MAINTENANCE	16612	128.0000 kgs
17049	12	NICAD BATTERIES, POTASSIUM HYDROXIDE, CADMIUM, SELENIUM FROM LAB • BULK BNW-832	BNW-832	11.8000 kgs
16942	12	BATTERIES - ALKALINE CONTAINING ZINC 16%, POTASSIUM HYDROXIDE 7%, COPPER 1% MERCURY .5% FROM PLANT	BNW-830	14.7000 kgs
16943	12	BATTERIES - MERCURY CONTAINING MERCURIC OXIDE 32%, POTASSIUM HYDROXIDE 11%, MERCURY 5%, FROM PLANT	BNW-833	9.7000 kgs
17094	12	BATTERIES - MERCURY CONTAINING MERCURIC OXIDE 32%, POTASSIUM HYDROXIDE 11%, MERCURY 5%, PLANT MAINT	MRC-079	0.2000 kgs
17103	12	NITRIC ACID, HYDROCHLORIC ACID FROM LAB • BULK SEQ-94	SEQ-94	145.5000 kgs
17108	12	CADMIUM, NITRIC ACID FROM LAB • BULK SEQ-93	SEQ-93	131.4000 kgs
17110	12	WATER CONTAMINATED WITH OIL & GASOLINE FROM LAB • BULK SEQ-101	SEQ-101	99.5000 kgs

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INVENTORY BY CELL

Cell: 12

ITEM #	CELL	WASTE DESCRIPTION	DRUM #	VOLUME, KGS
17131	12	NITRIC ACID <40%, WATER <60% SOLUTION FROM LAB • BULK SEQ-92	SEQ-92	140.9100 kgs
17133	12	CHROME LE OXIDE 10%, MOLYBDENUM 10%, ALUMINA 80% SOLUTION FROM LAB • MRC-089	MRC-089	0.0500 kgs
17221	12	BATTERIES - ALKALINE CONTAINING ZINC 16%, POTASSIUM HYDROXIDE 7%, COPPER 1%, MERCURY .5% FROM PLANT	17221	126.0000 kgs
17304	12	NITRIC ACID .86%, ZIRCONIUM NITRATE .3%, ALUMINIUM NITRATE .2%, NICKEL NITRATE .1%, HYDROFLUORIC AC	465L	3.5000 kgs
17260	12	HYDROCHLORIC ACID 22%, AMMONIUM HYDROXIDE <0.1%, WATER 78.1% SOLUTION FROM LAB	465L	2.5000 kgs
17262	12	NITRIC ACID 15.4%, HYDROCHLORIC ACID 6.1%, AMMONIUM IODIDE <0.1%, AMMONIUM NITRATE <0.1%, WATER 78.	465L	2.5000 kgs
17263	12	HYDROCHLORIC ACID 1.4%, LEAD, 1%, WATER 97.6% SOLUTION FROM LAB	465L	0.0000 kgs
17264	12	HYDROCHLORIC ACID 27%, NITRIC ACID 10%, SULFURIC ACID .7%, AMMONIUM IODIDE .2%, WATER 61.7% SOLUTION	465L	2.5000 kgs
17265	12	HYDROCHLORIC ACID 10%, OXALIC ACID .2%, AMMONIUM HYDROXIDE 3.3%, CESIUM CHLORIDE <0.1%, STRONTIUM N	465L	3.8000 kgs
17367	12	ALKALINE BATTERIES FROM PLANT MAINTENANCE • MRC-118 LABPACK	MRC-118	20.0000 kgs
17368	12	NI-CAD BATTERIES FROM PLANT MAINTENANCE • MRC-121 LABPACK	MRC-121	20.0000 kgs
17369	12	PURIFIL 4% POTASSIUM PERMANGENATE FROM LAB • MRC-39 LABPACK	MRC-039	181.0000 kgs
17486	12	AMMONIUM NITRATE 17%, NITRIC ACID 11%, AMMONIUM HYDROXIDE 10%, TETRAPHENYLARSONIUM CHLORIDE .05%, W	465L	2.5000 kgs
17487	12	AMMONIUM NITRATE 15%, NITRIC ACID 9.6%, AMMONIUM HYDROXIDE 7.7%, TETRAPHENYLARSONIUM CHLORIDE .11%,	465L	2.5000 kgs
17632	12	BATTERIES - ALKALINE CONTAINING ZINC 16%, POTASSIUM HYDROXIDE 7%, COPPER 1%, MERCURY .5% FROM PLANT	17632	125.5000 kgs
17680	12	COPPER .07%, CHROMIUM .23%, IRON .072%, POTASSIUM .8%, NICKEL .12%, SILICON .015%, MOLYBDENIM .06%,	465L	6.9000 kgs

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INVENTORY BY CELL

Cell: 12

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
17647	12	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB	464L	3.0000 kgs
17662	12	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB	464L	3.0000 kgs
17644	12	SULFURIC ACID 98%, WATER 2% SOLUTION FROM LAB	464L	0.0600 kgs
17627	12	CHROMIUM 41.5 ppm, CADMIUM 1 ppm, NITRIC ACID 1%, WATER 99% SOLUTION FROM LAB	465L	5.0000 kgs
17725	12	SILVER NITRATE FROM LAB • MRC-164 LABPACK	MRC-164	1.1000 kgs
17820	12	LEAD (126 ppm) .0126%, CHROMIUM (216 ppm) .0216%, SELENIUM (2.7 ppm) .0003%, NITRIC ACID 1%, WATER	464L	5.0000 kgs
17821	12	SELENIUM (3.8 ppm) .0004%, NITRIC ACID 1%, WATER 99% SOLUTION FROM LAB	464L	5.0000 kgs
17822	12	CADMIUM (1.3 ppm) .0001%, LEAD (28.2 ppm) .0028%, NITRIC ACID 1%, WATER 99% SOLUTION FROM LAB	464L	5.0000 kgs
17823	12	CHROMIUM (6 ppm) .0006%, lead (7 ppm) .007%, NITRIC ACID 1%, WATER 99% SOLUTION FROM LAB	464L	5.0000 kgs
18248	12	HYDROCHLORIC ACID 37.3%, WATER 62.7% SOLUTION FROM LAB	465L	2.5000 kgs
18223	12	PURIFIL (4-6% POTASSIUM PERMANGANATE) FROM LAB • MRC-133 BULK	MRC-133	72.0000 kgs
18142	12	PHOSPHORIC ACID 75%, SULFURIC ACID 25% SOLUTION FROM LAB	465L	1.0000 kgs
18143	12	PHOSPHORIC ACID 75%, SULFURIC ACID 25% SOLUTION FROM LAB	465L	1.0000 kgs
18144	12	PHOSPHORIC ACID 75%, SULFURIC ACID 25% SOLUTION FROM LAB	465L	1.0000 kgs
18145	12	HYDROCHLORIC ACID CONCENTRATED 14%, FORMALDEHYDE <1%, WATER 85% SOLUTION FROM LAB	465L	0.2500 kgs
18164	12	SILVER 1%, NITRIC ACID 7%, WATER 92% SOLUTION FROM LAB	465L	0.1000 kgs

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INVENTORY BY CELL

Cell: 12

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18165	12	SILVER .1%, NITRIC ACID 7%, WATER 92.9% SOLUTION FROM LAB	464L	0.1000 kgs
18166	12	CHROMIUM 1%, HYDROCHLORIC ACID 3.7%, WATER 95.3% SOLUTION FROM LAB	465L	0.0500 kgs
18167	12	CHROMIUM .1%, HYDROCHLORIC ACID 3.7%, WATER 96.2% SOLUTION FROM LAB	464L	0.1000 kgs
18168	12	CHROMIUM .01%, HYDROCHLORIC ACID .74%, WATER 99.16% SOLUTION FROM LAB	464L	0.1000 kgs
18169	12	SELENIUM 1%, NITRIC ACID 7%, WATER 92% SOLUTION FROM LAB	465L	0.0500 kgs
18170	12	SELENIUM .01%, NITRIC ACID 1.4%, WATER 98.59% SOLUTION FROM LAB	464L	0.1000 kgs
18171	12	ARSENIC 1%, HYDROCHLORIC ACID 5.55%, WATER 93.45% SOLUTION FROM LAB	465L	0.0500 kgs
18174	12	CADMIUM 1%, NITRIC ACID 7%, WATER 92% SOLUTION FROM LAB	465L	0.0500 kgs
18175	12	CADMIUM .1%, NITRIC ACID 7%, WATER 92.9% SOLUTION FROM LAB	464L	0.1000 kgs
18176	12	CADMIUM .01%, NITRIC ACID 1.4%, WATER 98.59% SOLUTION FROM LAB	464L	0.1000 kgs
18177	12	BARIUM 1%, HYDROCHLORIC ACID 3.7%, WATER 95.3% SOLUTION FROM LAB	465L	0.0500 kgs
18178	12	BARIUM .1%, HYDROCHLORIC ACID 3.7%, WATER 96.2% SOLUTION FROM LAB	464L	0.1000 kgs
18179	12	LEAD 1%, NITRIC ACID 7%, WATER 92% SOLUTION FROM LAB	465L	0.0500 kgs
18180	12	LEAD .1%, NITRIC ACID 7%, WATER 92.9% SOLUTION FROM LAB	464L	0.1000 kgs
18181	12	LEAD .01%, NITRIC ACID 1.4%, WATER 98.59% SOLUTION FROM LAB	464L	0.1000 kgs
18182	12	SILVER NITRATE 113 ppm, HYDROCHLORIC ACID 19%, WATER 81% SOLUTION FROM LAB	465L	1.0000 kgs

INVENTORY BY CELL

Cell: 12

<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
18332	12	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB	464L	3.0000 kgs
18333	12	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB	464L	3.0000 kgs
18334	12	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB	464L	3.0000 kgs
18335	12	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB	464L	3.0000 kgs
18336	12	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB	464L	3.0000 kgs
18337	12	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB	464L	3.0000 kgs
18338	12	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB	464L	3.0000 kgs
18339	12	NITRIC ACID 35%, WATER 65% SOLUTION FROM LAB	464L	3.0000 kgs
18340	12	SULFURIC ACID 48.3%, WATER 51.7% SOLUTION FROM LAB	464L	3.0000 kgs
18375	12	PHOSPHORIC ACID 10%, WATER 90% SOLUTION FROM LAB	464L	0.0283 kgs
18385	12	SELENIOUS ACID, PHOSPHORIC ACID FROM LAB	465L	0.4800 kgs
18399	12	ME 3,3,3,-TRIFLUOROPROPYL, POLYSILOXANE, FORMALIN FROM LAB • MRC-226	MRC-226	2.0000 kgs
18606	12	BATTERIES - ALKALINE CONTAINING ZINC 16%, POTASSIUM HYDROXIDE 7%, COPPER 1%, MERCURY .5% MAGNESIUM	18606	136.0000 kgs
18608	12	MAGNESIUM SULFATE 87.69%, SELICA GEL 1.54%, CHROMIUM OXIDE 3.08%, SODIUM HYDROXIDE 2.31%, PAPER .07	MRC-279	0.1300 kgs
			Total	3583.3856 kgs

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INVENTORY BY CELL

Cell: 13

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<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME, KGS</u>
12392	13	BATTERIES - ALKALINE	12392	79.0000 kgs
13163	13	ALKALINE BATTERIES FROM LAB	13163	125.0000 kgs
14966	13	BATTERIES - ALKALINE FROM PLANT MAINTENANCE	14966	125.0000 kgs
16524	13	BATTERIES - NI-CAD CONTAINING POTASSIUM HYDROXIDE FROM LAB	16524	1.0000 kgs
16009	13	BATTERIES - ALKALINE	16009	133.5000 kgs
16010	13	BATTERIES - CARBON ZINC	16010	19.5000 kgs
18218	13	HYDROFLUORIC ACID FROM LAB • MRC-195 LABPACK	MRC-195	4.0000 kgs
17901	13	BATTERIES - ALKALINE CONTAINING ZINC 16%, POTASSIUM HYDROXIDE 7%, COPPER 1%, MERCURY .5% FROM PLANT	17901	143.5000 kgs
17889	13	BATTERIES - CARBON ZINC CONTAINING ZINC 24%, AMMONIUM CHLORIDE 13.5%, ZINC CHLORIDE 3%, FROM PLANT	17889	16.5000 kgs
17890	13	BATTERIES - MERCURY CONTAINING MERCURIC OXIDE 32%, POTASSIUM HYDROXIDE 11%, MERCURY 5%, FROM PLANT	17890	5.5000 kgs
17892	13	BATTERIES - ALKALINE CONTAINING ZINC 16%, POTASSIUM HYDROXIDE 7%, COPPER 1%, MERCURY .5% FROM PLANT	17892	81.0000 kgs
			Total	733.5000 kgs

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INVENTORY BY CELL

Cell: 14

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<u>ITEM #</u>	<u>CELL</u>	<u>WASTE DESCRIPTION</u>	<u>DRUM #</u>	<u>VOLUME KGS</u>
12828	14	BROMINE	237L	4.5000 kgs
12829	14	BROMINE	237L	1.5000 kgs
13172	14	HYDROCHLORIC ACID	237L	1.5000 kgs
13133	14	IRRIDITE 80	237L	3.6000 kgs
13134	14	IRRIDITE 80	237L	3.8000 kgs
13135	14	POTASSIUM CHLORIDE	237L	2.8000 kgs
13192	14	NITRIC ACID	237L	9.0000 kgs
13559	14	NITRIC ACID 39% SOLUTION FROM LAB	237L	2.5000 kgs
14960	14	BATTERIES - GELL CELL FROM PLANT MAINTENANCE		68.0000 kgs
17328	14	BLEACH 18%, AMMONIUM SULFIDE 1% SOLUTION FROM LAB • MRC-103	MRC-103	1.0000 kgs
17366	14	GELL CELL BATTERY FROM PLANT MAINTENANCE • MRC-117 LABPACK	MRC-117	20.0000 kgs
17753	14	WATER 80%, NITRIC ACID 19%, SILVER NITRATE 01% SOLUTION FROM LAB	17753	32.0000 kgs
17891	14	BATTERIES LEAD ACID FROM PLANT MAINTENANCE	17891	5.0000 kgs
			Total	155.2000 kgs

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END

INVENTORY RMW STORED AT 305B

11/25/92

CELL #9: Flammable Liquids

<u>ITEM #:</u>	<u>REQUEST #:</u>	<u>WASTE DESCRIPTION:</u>	<u>KGS OR L:</u>
259B		55-gal drum, contains 56 items (see attachment #1)	195.0 Kg
325-92-048	92R01	Flammable scintillation liquids containing hexone, methanol, xylene, acetone, toluene, selenium, methylene chloride, arsenic, sodium dichromate, thenoyl trifluoroacetone	32.6 Kg
7589	B1-B4 89R-255	Polishing solutions containing 38% isopropyl alcohol, 7% methanol, 4% sodium nitrate, 51% water. pH=7, flashpoint <100 (isopropyl-53 F).	16.0 L
7592	11R 89R255	Polishing solution containing 98% methanol, 2% of traces of acetic acid and perchloric acid.	2.0 kg
7593	14R & 15R 89R-255	Polishing solution containing 98% methanol, 2% of traces a acetic acid and perchloric acid.	2.0 Kg
7594	17R 89R-255	Polishing solution containing 98% methanol, 2% of traces of acetic acid and butyl alcohol.	1.0 Kg
7590	B5 89R-255	Polishing solution containing 38% isopropyl alcohol, 7% methanol, 4% sodium nitrate, and 51% water.	1.0 Kg
7591	8R 89R255	Polishing solution containing 98% water, 2% methanol, traces of acetic and perchloric acid.	1.0 Kg
90003	89R23A	Scintillation liquids containing hexane, xylene, toluene, thenoyl tri-fluoroacetone.	86.2 Kg
9698,9699 Dm-104	90R-19	Machine oil with halogenated hydrocarbons (trichlorotrifluoroethane). photographic plates.	150.0 Kg
10063	89R-18 90-054	Beryllium fines with cutting oil in Kitty litter. 10% Be, 40% kitty litter, 25%	3.0 Kg

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(2)

		cutting oil, 25% water.	
6280	89-172 309-1	Organic mixture of 25% hexane, 25% acetone, 50% water. Scintillation cocktail	2.0 Kg
7584	89R-254 529-3	Beckman Ready Solv CP scintillation liquid containing 60% pseudocumene, 40% fluors.	0.2 Kg
7587	89R-254 529-7	Scintillation liquid containing 5% xylene, 10% hexone, 1% thenoyl trifluoroacetone, 5% methyllactic acid, 79% water.	2.0 Kg
7588	89R-254 529-6	Beckman Ready Solv CP scintillation liquid containing 60% pseudocumene, 40% fluors.	2.0 Kg
7586	89R-254 529-5	Amersham PCS scintillation cocktail containing 90% Xylene, 10% 2-ethoxyethanol.	2.0 Kg
		Subtotal:	498.0 Kg

CELL 7: RMW IN BASEMENT

8771	89-307	drum #3, transformer less oil	22.7 Kg
325-91-0000031	91R-23	Mercury spill cleanup containing floor tile, cloth, rags, plastic, paper, amalgamated mercury, soil, glass.	81.8 Kg
8772	89-307	drum #4, transformer, less oil	11.4 Kg
KBS-4A		55-gal drum, galvanized (see attachment #2)	34.236 Kg
KBS-2		55-gal drum, galvanized (attach 3)	1.137 Kg
KBS-5		20 gal, liquid oxidizers (attach 4)	9.473 Kg
322L		55-gal drum, oxidizer (attach 5)	21.782 Kg
13116	90-381	Poly bottle, 2 quart	1.89 Kg
14372	91-122	Ethylhexyl phosphate	6.0 L
13938	91-073	Inorganic mixture, HCL, HNO3	3.7 L

(3)

13574	91-041	Titanium Tetrachloride	0.47 L
11655		Zirconium Standard	0.01 L
11337		Ferric Chloride	0.001 L
11342		Concentrated Phosphoric	0.005 L
3012	89-053	DPD Indicator Solution	0.473 L
11007	90-174	Titanium Trichloride	0.118 L
10873	90-146	Gold chloride	0.005 L
11659	90-184	Zirconium Standard	0.003 L
13594	91-041	Titanium Tetrachloride	0.473 L
11010	90-174	Bromine	0.2 L
8994	89-322	Chlorosulfonic Acid	0.2 L
8994	89-322	Chlorosulfonic Acid	0.7L
13776	91-036	Inorganic mix	0.4 L
13557	91-034	Inorganic mix	0.47 L
13563	91-036	Hydrochloric Acid	2.7 Kg
14685	91-155	Inorganic mix	3.78 L
11418	90-184	Aluminum Chloride	1.0 Kg
11461	90-184	Aluminum Chloride	0.454 Kg
13939	91-074	Inorganic mix	3.2 kg
613-2		Nitric / metals (attachment #6)	17.0 L
14525	91-126	Hydrochloric acid	17.0 L
14389	91-126	Hydrochloric acid	18.9 L
	91-118	Battery Acid	18.9 L
	91-118	Battery Acid	18.9 L
13927	-- -069	Inorganic mix	2.5 L
13238	90-416	Nitric Acid	2.5 L

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13236	90-414	Nitric Acid	2.4 L
13118	90-381	Nitric & water	2.0 L
13930	91-071	Inorganic mix	2.5 L
13904	91-065	Hydorchloric acid	1.0 L
13905		Nitric	1.0 L
11316		Ammonium Iodide	0.4 L
13941	91-074	Inorganic mix	2.5 L
13940	91-074	Inorganic mix	2.5 L
14214	91-083	Inorganic mix	2.5 L
13935	91-073	Inorganic mix	2.5 L
13237	90-415	Nitric Acid	2.4 L
13285	91-013	PCB contaminated oil	15.9 Kg
Pump	90R40	PCB contaminated well pump.	45.0 Kg
7568	89-254 529-9	Slop jar waste containing 2% fluran, 0.01% nitric acid, 98% water.	2.0 Kg
7583	89-254 529-1	Transformer oil containing 500 ppm PCB.	4.0 L
7579	89-254 529-20	Slop jar waste containing 8% hydroxylamine hydrochloride, 4% of a solution of: nitric acid, hydrobromic acid, methanol, potassium permanganate, sulfamic acid, sodium sulfite, sodium nitrate solution, 88% water.	2.0 Kg
7578	89-254 529-19	Slop jar waste containing 8% hydroxylamine hydrochloride, 4% of a solution of: nitric acid, hydrobromic acid, methanol, potassium permanganate, sulfamic acid, sodium sulfite, sodium nitrate solution, 88% water.	2.0 L
5214	89-093	Uranyl Acetate	0.025 Kg
5214	89-093	Uranyl Acetate	0.025 Kg
7582	89-254	PCBs, Transformer oil	

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	529-2		
7585	89-254 529-4	Solution of tar, 5 ppm PCBs, 9.8% sulfuric acid.	1.0 L
7569	89-254 529-10	Slop jar waste containing 8% hydroxylamine hydrochloride, 4% of a solution of: nitric acid, hydrobromic acid, methanol, potassium permanganate, sulfamic acid, sodium sulfite, sodium nitrate solution, 88% water.	2.0 L
7580	89-254 529-21	Slop jar waste containing 8% hydroxylamine hydrochloride, 4% of a solution of: nitric acid, hydrobromic acid, methanol, potassium permanganate, sulfamic acid, sodium sulfite, sodium nitrate solution, 88% water.	2.0 L
7573	89-254 529-14	Slop jar waste containing 8% hydroxylamine hydrochloride, 4% of a solution of: nitric acid, hydrobromic acid, methanol, potassium permanganate, sulfamic acid, sodium sulfite, sodium nitrate solution, 88% water.	2.0 L
7572	89-254 529-13	Slop jar waste containing 8% hydroxylamine hydrochloride, 4% of a solution of: nitric acid, hydrobromic acid, methanol, potassium permanganate, sulfamic acid, sodium sulfite, sodium nitrate solution, 88% water.	2.0 L
11162	90-184	Cardisorber	0.15 L
11170	90-184	Aminoethanol	0.1 L
11330	90-184	Sodium Hydroxide	0.001 Kg
11326	90-184	Sodium Hydroxide	0.001 Kg
11325	90-184	Boric acid + sodium hydroxide	0.0005 Kg
11335	90-184	Antimony	0.01 Kg
11422	90-184	Potassium hydroxide	0.15 Kg
11287	90-184	Barium hydroxide	0.06 L
10581	90-115	Germanium Carrier	0.06 L

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11327	90-184	Sodium hydroxide + Aluminum	0.0005 Kg
11336	90-184	(CH3) 4NOH (liquid)	0.5 Kg
11567	90-184	Lithium hydroxide	0.5 Kg
Subtotal:			407.66 Kg
TOTAL:			905.66 Kg

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APPENDIX B-4
















NOTICE OF NONCOMPLIANCE RINSING AND STORAGE OF 101-SY AIR LANCES

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

January 15, 1993

CERTIFIED MAIL

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

EPA/State
ID Number: (WA7890008967)

Data and Time of Inspection(s):
November 6, 1992 1400 - 1600 hours
December 11, 1992 1300 - 1330 hours
January 14, 1993 1200 - 1700

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Messrs. Wagoner and Anderson:

Re: Rinsing and Storage of 101 SY Air Lances

Thank you for the assistance of United States Department of Energy (USDOE-RL) and Westinghouse Hanford Company (WHC) personnel during the investigation of the removal, treatment, and transportation of air lances from tank 101 SY. Due to extenuating circumstances, Ecology granted a 30-day extension, as allowed by WAC 173-303-200(1)(a), to rinse and transport air lances previously removed from the tank. The extended accumulation date was January 13, 1993. USDOE-RL subsequently submitted an amended request that identified the actual accumulation ending dates for the three air lances to be January 12, 15, and 16, respectively. Ecology concurred with those amended dates.

The morning of January 12, 1993, Ecology was notified by WHC personnel that freezing conditions may preclude them from rinsing the air lances within the dates of the 30-day extension. On January 13, 1993, Ecology was informed that the first 30-day extension date was missed because of inclement weather. On January 14, 1993, during a field inspection, Ecology inspectors identified that the extension dates were not being met for reasons other than simply weather conditions. For example, only one rigid receiver overpack had been completely fabricated and loaded with an air lance. The other overpacks were not staged in the tank farm.

On January 15, 1993, Ecology staff met with USDOE-RL and WHC staff to discuss the air lance issues. USDOE-RL and WHC agreed that the air lances will be rinsed and transported no later than close of business (1700 hours) Monday, January 25, 1993. It was also agreed in this meeting that the completion date of January 25 could be adjusted if

John Wagoner
Tom Anderson
Page 2
January 15, 1993

inclement weather conditions or technical problems arise. If an adjustment is required, adequate justification must be provided to Ecology to substantiate the need for any changes.

This letter requires the satisfactory completion of rinsing and transportation of the air lances by the above noted time. Failure to meet this date without adequate justification will result in further enforcement action by Ecology. I would like to acknowledge that the resolution of this concern was a collaborative effort by all three parties.

This compliance action is being taken under the authorities granted to Ecology by RCW 70.105.095 (Hazardous Waste Management) and using the policy guidance of the Department.

Details on the following violations are identified in the enclosed fact sheet:

CLASS I VIOLATIONS

WAC 173-303-200 - Accumulating Dangerous Waste On-Site

- o failure to ship wastes off-site in 120 days or less, after receiving a 30 day extension, to a designated facility per subsection (1)(a)

WAC 173-303-630 - Use and Management of Containers

- o failure to place and store dangerous waste in containers in good condition per subsection (2)

In order to correct the identified violations of WAC 173-303, please complete the following item within the time frame specified. Please be advised that failure to correct this non-compliant item may result in the issuance of an administrative order and/or penalty under RCW 70.105.095 (Hazardous Waste Management).

1. Prior to January 25, 1993 at 1700 hours WEC shall rinse and then transfer to the Central Waste Complex, the three (3) air lances being stored in the ST Tank Farm. Ecology must be notified immediately of any technical or adverse weather conditions to determine whether an extension is justified.

John Wagner
Tom Anderson
Page 3
January 15, 1993

Please coordinate any questions or necessary clarification concerning this compliance letter or the enclosed "Certificate of Completion" with Steve Moore or Casey Rudd (736-3023 or 736-3022 respectively) of my staff. Please complete and submit the enclosed Certificate of Completion or provide a written report, including receipt of the air licenses by the Central Waste Complex, to Steve Moore by February 1, 1993.

Sincerely,



David Mylander, Kennelick Manager
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

DN:mf

Enclosures:

1. Certificate of Completion
2. Fact sheet

cc: Mr. Roger Stanley, Program Manager
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

Mr. Dave Jansen, Hanford Project Manager
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

Mr. G. Thomas Tebb, RCRA Unit Supervisor
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

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101 SY Air Lance Inspection Fact Sheet

Owner U. S. Department of Energy (USDOE-RL)
 Richland Operations Office
 P.O. Box 550
 Richland, WA 99352

Operator Westinghouse Hanford Company (WHC)
 P.O. Box 1970
 Richland, WA 99352

Facility/Location SY Tank Farm, 200 West Area - Hanford Federal
 Reservation

Contact Alex Taimouri, USDOE-RL (509) 376-6222
 Matthew La Barge, WHC (509) 376-0842

Activity Rinsing, Transportation, and Storage of 101 SY Air Lances

Findings

Facility inspection and review of documentation by Ecology revealed the following findings:

Finding #1 EXCEEDING NINETY DAY STORAGE LIMIT

WAC 173-303-200 Accumulating dangerous waste on-site. (1) A generator . . . may accumulate dangerous waste on-site without a permit for ninety days or less after the date of generation, provided that: (a) All such waste is shipped off-site to a designated facility or placed in an on-site facility which is permitted by the department . . . in ninety days or less. The department may, on a case-by-case basis, grant a maximum thirty day extension to this ninety day period if dangerous wastes must remain on-site due to unforeseen, temporary and uncontrollable circumstances. A generator who accumulates dangerous waste for more than ninety days is an operator of a storage facility and is subject to the facility requirements of this chapter and the permit requirements of this chapter as a storage facility unless he has been granted an extension to the ninety day period allowed pursuant to this subsection; (b) The waste is placed in containers and the generator complies with WAC 173-303-630 (2), (3), (4), (5), (6), (8), and (9) . . . For container accumulation (including satellite areas as described in subsection (2)(c) of this section), the department may require that the accumulation area include secondary containment in accordance with WAC 173-303-630(7), if the department determines that there is a potential threat to public health or the environment due to the nature of the wastes being accumulated, or due to a history of spills or releases from accumulated containers. In addition, any new container accumulation areas (but not including new satellite areas, unless required by the department) constructed or installed after September 30, 1986, must

comply with the provisions of WAC 173-303-630(7); (2) For the purposes of this section, the ninety-day accumulation period begins on the date that: (a) The generator first generates a dangerous waste

- 1) The three air lances were removed from tank 101 SY on September 14, 17, and 18, 1992. The air lances were placed inside rigid receivers as they were withdrawn from the tank. The rinsing procedure for decontaminating the air lances was not followed because high winds delayed immediate removal from the tank after rinsing. The air lances were considered radioactive mixed waste by WHC and USDOE-RL because the rinsing procedure was unsuccessful. The rigid receivers containing the air lances were placed on supports in a fenced off area of SY tank farm without secondary containment.
- 2) On December 10, 1992 WHC and USDOE-RL proposed a rinsing procedure to reduce the high radiation levels of the air lances to be performed before transferring the air lances to the Central Waste Complex.
- 3) On December 14, 1992 USDOE-RL requested a thirty-day extension to the ninety-day accumulation period for the air lances to accommodate fabrication of the rinsing and storage containers. Ecology granted the extension and the final extension dates were later amended to be January 12, 15, and 16, 1993 to account for when each air lance was removed. The first accumulation date was exceeded, and USDOE-RL and WHC informed Ecology there was no possibility of meeting the final two accumulation dates on January 15, 1993.

Finding #2 IMPROPER STORAGE OF HAZARDOUS WASTE

WAC 173-303-200 Accumulating dangerous waste on-site. (1) A generator, not to include transporters as referenced in WAC 173-303-240(3), may accumulate dangerous waste on-site without a permit for ninety days or less after the date of generation, provided that: (a) All such waste is shipped off-site to a designated facility or placed in an on-site facility which is permitted by the department . . . in ninety days or less. (b) The waste is placed in containers and the generator complies with WAC 173-303-630 (2), (3), (4), (5), (6), (8), and (9), or the waste is placed in tanks and the generator complies with WAC 173-303-640 (2) through (10) . . . (c) The date upon which each period of accumulation begins is marked and clearly visible for inspection on each container; (d) While being accumulated on site, each container and tank is labeled or marked clearly . . . (e) The generator complies with the requirements for facility operators contained in WAC 173-303-330 through 173-303-360 . . .

WAC 173-303-630 Use and management of containers. (1) Applicability.

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The regulations in this section apply to owners and operators of all dangerous waste facilities that store containers of dangerous waste.

(2) Condition of containers. If a container holding dangerous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the dangerous waste from the container to a container that is in good condition or manage the waste in some other way that complies with the requirements of chapter 173-303 WAC. In addition, the owner or operator must address leaks and spills in accordance with the applicable provisions of WAC 173-303-145 and 173-303-360. . .

Ecology's inspection of waste storage areas, record reviews, and personnel interviews revealed the following conditions and deficiencies in waste storage facility construction and container condition:

- 1) The high radiation area/ninety day accumulation area where the rigid receivers were stored is a gravel covered portion of the ST tank farm, and does not have any provisions for secondary containment of released materials.
- 2) On September 28, 1992, radioactive contamination was discovered on the soil under one of the rigid receivers. The contamination was caused by leakage of liquid tank waste from the rigid receiver. The release was surveyed and covered to prevent the spread of contamination, but has not been remediated as of January 15, 1993.
- 3) After discovering the release on September 28, 1992, some of the joints on the rigid receivers were covered with metal tape and plastic. On November 6, 1992, Ecology notified WEC and USDOE-RL that the receivers did not provide satisfactory storage.
- 4) WEC has designed rinsing and storage containers for the air lances and is prepared to perform the first rinsing evolution as of January 15, 1993.

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Please complete and return this form to Steve Moore, Washington State
Department of Ecology, by February 1, 1993.

CERTIFICATE OF COMPLETION

As a representative of the U.S. Department of Energy, I certify, to the best of my knowledge, the completion of the item identified below. The item represents the actions required for 101 SY air lance rinsing, transportation, and storage in a compliant facility. Tank 101 SY is located in the SY tank farm on the Hanford Reservation, 200 West Area, Facility ID Number WA7890008967, as described in the January 15, 1993 Compliance Letter.

COMPLETION STATUS

(The facility representative shall list completion data and initial each item.)

<u>Corrective</u> <u>Action Items</u>	<u>Due Date</u>	<u>Date Completed</u>	<u>Initials</u>	<u>Comments</u>
Item 1	_____	_____	_____	_____

Signature of USDOE-RL Representative

Date

APPENDIX B-4A

RESPONSE TO NOTICE OF NONCOMPLIANCE RINSING AND STORAGE OF 101-SY AIR LANCES

The U.S. Department of Energy, Richland Field Office formally has not responded to this Notice of Noncompliance as of the submitted date of this Notice of Intent.

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APPENDIX B-5

NOTICE OF VIOLATION 100-K EAST FUEL STORAGE BASIN

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JUSTINE M. GEBBIE
Secretary



AIR 93-110kbasin

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
DIVISION OF RADIATION PROTECTION
Airustrial Center, Bldg. 5 • P.O. Box 47827 • Olympia, Washington 98504-7827

NOTICE OF VIOLATION

February 2, 1993

Mr. John Hunter, Assistant Manager
Office of Assistant Manager
for Operations
U. S. Department of Energy
Richland Field Office
P O Box 550
Richland, Washington 99352

Dear Mr. Hunter:

It has come to our attention that several activities have been under way in the 100-KE Fuel Storage basin that are not in compliance with Washington Administrative Code (WAC) 246-247, Radioactive Air Emissions Regulations. This letter, therefore, constitutes a Notice of Violation (NOV) related to those activities.

WAC 246-247-070 states that "Construction shall not commence on any new source that is required to register... until a Notice of Construction has been approved...." Construction is further defined as follows: "Addition to, or enlargement, modification, replacement, alteration of any process or source... will require the proposed project to utilize Best Available Radionuclide Control Technology (BARCT)." BARCT requires approval by the Department of Health.

The following violations are noted:

1. Sludge work, including the removal and placement into canisters, has taken place, after the Department of Health (DOH) made it clear to Westinghouse (WHC) and the Department of Energy (USDOE) Regulatory Permitting that any sludge work is considered a modification, and requires a Notice of Construction (NOC). (Attempted placement in canisters was confirmed by the K-Basin Plant Manager on 1/28/93). The Department has not received a NOC, nor given a BARCT approval. The moving of sludge significantly increases the "potential-to-emit" of radionuclides to the air.

Mr. John Hunter
February 2, 1993
Page 2

2. Actual construction or modification work was initiated without approval, and without a completed and approved BARCT. A letter dated January 26, 1993, from Ron Bliss to John Hunter, states: "Actual encapsulation equipment installation in the 105-KE Basin discharge chutes has commenced." Installation of this equipment represents a major part of the modification that requires DOH approval. This violation was discovered during a visit by two DOH inspectors on January 28, 1993, and confirmed in the Bliss-Hunter letter dated January 26, 1993.

The Department of Energy is, therefore, instructed to cease all operations associated with these activities until DOH reviews and approves the NOC and BARCT reports.

The Department of Energy has taken the position that DOH was informed of the sludge encapsulation activity and has provided a timeline of events attempting to document that foreknowledge. That timeline only included USDOE and WHC Operation's activities, and did not include Westinghouse or USDOE Permitting activities, where DOH specifically required inclusion of sludge encapsulation work in the application. None of the events cited in the timeline gave DOH any indication that sludge encapsulation would be under way prior to the approval of the application. The permitting organizations in USDOE and Westinghouse can, however, verify that DOH clearly stated the requirements. These two organizations represent an agreed upon conduit for DOH communications.

Specific responses related to the timeline follow:

- DOH recognizes that sludge encapsulation was mentioned in the 7/23/92 meeting. However, DOH rejected the entire concept in the meeting and required a "full" explanation of all activities and a complete determination of the source terms in a letter dated 7/27/92. DOH has yet to receive the "full" explanation, and was informed that the NOC would explain the upcoming activities, indicating that any activity associated with the source term would not occur until DOH granted approval.
- Several visits to K-Basins are cited with the "Note" that DOH considered them "productive and cooperative". That is true; however, DOH staff never received information that sludge re-encapsulation would occur outside of the NOC application. USDOE admits that in those visits, they do "not specifically address pre-encapsulation activities."

Mr. John Hunter
February 2, 1993
Page 3

- In the October 1992 surveillance, DOH stated that water treatment is considered adequate for current operations. Those operations did not include movement of sludge. If they had, DOH's level of concern over the Reasonably Achievable Control Technology standard (RACT) would have been considerably greater.
- In the 10/9/93 Regulator's meeting, there was a discussion of K-Basin leak surveillance, and a statement that encapsulation could begin as soon as January 1993. The statement is irrelevant since the Department of Health has not received an application. USDOE permitting was informed, however, that a January 1993 start date would be impossible. The presentation given to Regulators included a slide on "operational activities." Sludge removal was not among the activities listed.
- In a presentation given to DOH on 1/20/93, two topics were on USDOE's agenda. The first, the follow-up to the surveillance, was discussed. The second, involving the Notice of Construction, was tabled by DOH since it would be counter productive to discuss USDOE's conclusions before DOH received the application. There was no discussion of the NOC and our copies were discarded after the meeting.
- The last paragraph of the provided timeline includes a statement that, whenever DOH was in K-Basin, the "pre-encapsulation activity equipment was always evident in the basin." This implies that it was the Department's responsibility to discover the equipment, since it was never described to DOH until 1/28/93, when a DOH inspector asked specifically about it.

As stated previously, an extremely important part of the timeline is missing. The DOH, at USDOE's instruction, channels all correspondence, questions and concerns through specific groups in USDOE and Westinghouse; in this case, the Permitting groups. All such communications were left out of the provided timeline. Those organizations, however, can verify that DOH made it very clear what was required in the application and what constitutes commencement of construction or modification.

It is essential to maintain consistency in communication. It is also important that the permitting organizations in USDOE and Westinghouse are not blamed for these violations. The problems have originated on the operations side of both organizations.

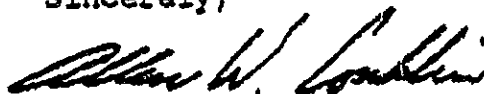
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Mr. John Hunter
February 2, 1993
Page 4

The DOH remains committed to this important project. In spite of these violations, we will attempt to expedite the review of the NOC and BARCT application.

The Department of Energy must provide a written response verifying that activities related to these violations have been stopped within one week of receiving this NOV. Please route any questions through Jim Bauer's organization.

Sincerely,



Allen W. Conklin, Head.
Air Emissions and Defense Waste
Division of Radiation Protection

AWC/jr

cc: T. R. Strong
Eric Slagle
Kristine Gebbie
Dan Silver
Dave Nylander, WDOE
Dave Jansen, WDOE
Rick Poeton, EPA
Paul Day, EPA
Ralph Patt, ODOE
Jim Bauer, USDOE

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APPENDIX B-5A

RESPONSE TO NOTICE OF VIOLATION 100-K EAST FUEL STORAGE BASIN

The U.S. Department of Energy, Richland Field Office formally has not responded to this Notice of Violation as of the submitted date of this Notice of Intent.

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APPENDIX B-6

NOTICE OF VIOLATION HANFORD FACILITY NATIONAL EMISSION STANDARD
FOR HAZARDOUS AIR POLLUTANTS

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EAP

United States
Environmental Protection
Agency

Region 10
1200 Sixth Avenue
Seattle WA 98101

Alaska
Idaho
Oregon
Washington



FEB 03 1993

Reply to the
Attn of AT-082

COMPLIANCE MAIL - RETURN RECEIPT REQUESTED

John Wagoner, Manager
Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

RE: Compliance Order and Information Request
EPA Docket No.: 1092-01-23-113/114

Dear Mr. Wagoner:

You are hereby served with the enclosed Compliance Order and Information Request issued pursuant to sections 113(a) (3) and 114 of the Clean Air Act (CAA), 42 U.S.C. §§ 7413(2) (3) and 7414.

The U.S. Environmental Protection Agency (EPA) has found the Department of Energy (DOE) Richland Operations Office, Richland, Washington, in violation of the National Emission Standard for Hazardous Air Pollutants (NESHAP) for radionuclides (40 C.F.R. Part 61, Subpart H). This Compliance Order requires DOE to comply with the radionuclide NESHAP by evaluating radionuclide emission points at the Hanford site and performing continuous emission measurements, as specified by 40 C.F.R. § 61.93.

Section 114 of the CAA, 42 U.S.C. § 7414, authorizes EPA to request records, reports, or other information for the purpose of determining whether violations of the CAA have occurred. The enclosed Information Request requires DOE to submit a written compliance plan to meet the requirements of the Compliance Order by April 30, 1993.

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If you have any questions regarding this matter, please call Richard Foster at (206) 553-8633 for technical matters, or Margaret Silver at (206) 553-1476 for legal matters.

Sincerely,

John S. McMillan, acting
Jim McCormick, Director
Air and Toxics Division

Enclosure

cc: C. Smith, WD-126
G. Hofer, HW-124
A. Conklin, WA-DOE
C. Cartoll, WOO
S. Stites, DOE-RL
A. Collis, ANR-460W
G. Davidson, OE-2261
M. Garvey, OE-2261
P. Day, EPA-Hanford
D. Emen, EPA-Hanford

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

UNITED STATES DEPARTMENT OF
ENERGY, RICHLAND OPERATIONS
OFFICE,

Respondent.

Docket No. 1092-01-23-113/114

COMPLIANCE ORDER AND
INFORMATION REQUEST

BACKGROUND

1. The National Emission Standard for Hazardous Air Pollutants (NESHAP) for radionuclides at 40 C.F.R. Part 61, Subpart E applies to any facility owned or operated by the Department of Energy (DOE) and which emits any radionuclide (other than radon-220 or radon-222) into the air. Owners and operators of such facilities are required to evaluate all radionuclide emission points to determine which are subject to the continuous emission measurement requirements specified in 40 C.F.R. Part 61, Subpart E, and to conduct continuous emission measurements in accordance with 40 C.F.R. Part 61, Subpart E.

2. The facility operated by DOE in Hanford, Washington ("Hanford Site") emits radionuclides other than radon-220 or radon-222 and therefore is subject to the requirements of 40 C.F.R. Part 61, Subpart E.

1 3. In a letter dated May 7, 1991, DOE provided EPA with the
2 results of an evaluation performed to determine which emission
3 points at the Hanford Site require continuous emission
4 measurement under 40 C.F.R. Part 61, Subpart H. Emission points
5 identified by DOE as requiring continuous emission measurements
6 included seven emission points operated by Westinghouse Hanford
7 Company (WHC) and five emission points operated by Battelle
8 Pacific Northwest Laboratories (PNL). In this same letter, DOE
9 committed to modify the five PNL emission points to meet the
10 requirements of 40 C.F.R. § 61.93 for continuous measurement of
11 emissions.

12 4. On February 10, 1992, EPA issued an Information Request
13 to DOE. The purpose of this Information Request was to obtain
14 data to evaluate Hanford Site compliance with the requirements of
15 40 C.F.R. Part 61, Subpart H for continuous measurement of
16 radionuclide emissions at DOE facilities. DOE responded to this
17 request and informal requests for additional information in
18 letters dated March 3, 1992, April 23, 1992, June 30, 1992, and
19 September 29, 1992.

20 FINDINGS

21 5. Based on information provided by DOE, EPA has determined
22 that DOE has not properly evaluated all radionuclide emission
23 points to determine which are subject to the continuous emission
24 measurement requirements specified in 40 C.F.R. Part 61,
25 Subpart H. Specifically, calculation of potential unabated
26

emissions from WEC emission points did not take into account all pollution control devices as required by 40 C.F.R. § 61.93.

6. Based on information provided by DOE, EPA has determined that the methods used to continuously measure radionuclide emissions at the Hanford Site do not meet the requirements of 40 C.F.R. Part 61, Subpart E. Specifically, emissions from the seven WEC and five PNL emission points identified by DOE on May 7, 1991 are not being measured in accordance with the methods specified in 40 C.F.R. § 61.93.

COMPLIANCE ORDER

7. Section 113 of the CAA, 42 U.S.C. § 7413, authorizes EPA, whenever on the basis of any information available any person is found to be in violation of a requirement of the Clean Air Act, including a NESHAP, to issue an order requiring the person to comply with such standards. Pursuant to Section 113(2)(3) of the CAA, 42 U.S.C. § 7413(2)(3), EPA, through the Region 10 Director of the Air and Toxics Division, and upon the basis of available information, hereby issues the following Compliance Order.

8. DOE shall evaluate all radionuclide emission points at the Hanford Site to determine which are subject to the continuous emission measurement requirements specified in 40 C.F.R. Part 61, Subpart E. Emissions shall be measured in accordance with the methods specified in 40 C.F.R. § 61.93.

9. DOE shall continuously measure radionuclide emissions in accordance with 40 C.F.R. § 61.93 at the seven WEC and five

1 PNL emission points identified in the DOE letter of May 7, 1991,
2 and any additional emission points that DOE determines, pursuant
3 to paragraph 3, are subject to the continuous emission
4 measurement requirements of 40 C.F.R. Part 61, Subpart E.

5 10. DOE shall comply with this Compliance Order as
6 expeditiously as practicable, but in no event longer than one
7 year after the date of issue of this Compliance Order.

8 INFORMATION REQUEST

9 11. No later than April 30, 1993, DOE shall provide a
10 written compliance plan to meet the requirements of this
11 Compliance Order. This plan shall include a list of responsible
12 personnel, objectives to be obtained, anticipated deliverables,
13 and schedules for implementation. The compliance plan shall
14 provide for monthly reporting of work completed during the
15 previous month and work planned for the following month. EPA
16 expects to use this schedule as the basis for a Federal Facility
17 Compliance Agreement (FFCA) with DOE.

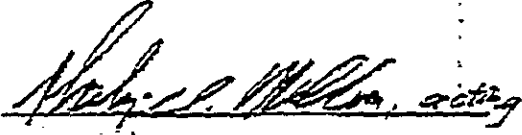
18 12. The information required by paragraph 11 shall be
19 submitted to:

20 Jerry Deitch, Acting Section Chief
21 Radiation and Indoor Air Section
22 U.S. Environmental Protection Agency
1200 Sixth Avenue (AT-032)
Seattle, Washington 98101

23 13. If you have any technical questions concerning this
24 Compliance Order and Information Request, please contact Richard
25 Poeton, Air and Toxics Division, U.S. Environmental Protection
26 Agency, 1200 Sixth Avenue (AT-032), Seattle, WA 98101,

1 (206) 553-8633. Other questions concerning this information
2 Request may be addressed to Margaret Silver, U.S. Environmental
3 Protection Agency, Office of Regional Counsel, 1200 Sixth Avenue
4 (SO-156), Seattle, WA 98101, (206) 553-1476.
5
6

7 Dated this 1st day of Feb., 1993.
8
9


10 Jim McCormick, Director
11 Air and Toxics Division
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APPENDIX B-6A

RESPONSE TO NOTICE OF VIOLATION HANFORD FACILITY NATIONAL EMISSION STANDARD
FOR HAZARDOUS AIR POLLUTANTS

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Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

93-RPB-133

MAR 03 1993

Mr. Jerry Leitch, Chief
Radiation and Indoor Air Section
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98081

Dear Mr. Leitch:

COMPLIANCE ORDER AND INFORMATION REQUEST U.S. ENVIRONMENTAL PROTECTION
AGENCY (EPA) DOCKET NUMBER: 1092-01-23-133/114

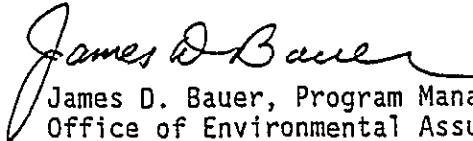
7 The U.S. Department of Energy, Richland Field Office (RL) has received the
2: subject Compliance Order and is drafting a compliance plan in response. RL
2: would like the opportunity to meet with EPA Region 10 to obtain clarification
2: of the compliance order.

3 In order for RL to adequately plan and schedule upgrades to meet the one year
3 time frame of the compliance order, we request that you provide us, in
3 writing, with more specific detail on compliance deficiencies of the seven
3 "major" stacks managed by Westinghouse Hanford Company (WHC) at the Hanford
3 Site. This will help toward completing a compliance plan that is acceptable
3 to the EPA Region 10. To assist in defining those details, Mr. Rick Poeton is
3 invited to meet with RL and WHC facility representatives in Richland,
3 Washington, to discuss these issues, including the minimum modifications
3 needed to achieve compliance with the requirements. Mr. Poeton's draft
3 comments (contained in a working draft from Mr. Poeton to Mr. Steve Stites,
3 RL, dated January 11, 1993) on WHC's point-by-point comparisons for National
3 Emission Standards for Hazardous Air Pollutants equivalency on those seven
3 stacks will be a focus of the meetings.

9 By the time this letter arrives, Mr. Poeton should have received an verbal
invitation to the proposed meeting.

Should you have any questions regarding this transmittal, please call me or
Mr. Steve Stites of my staff on (509) 376-8566.

Sincerely,


James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy

EAP:SDS

cc: L. P. Diediker, WHC
B. G. Erlandson, WHC
G. W. Jackson, WHC

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APPENDIX B-7

NOTICE OF NONCOMPLIANCE FAILURE TO DESIGNATE SOLID WASTE CONTAINERS

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

March 10, 1993

CERTIFIED MAIL

Mr. John Wagoner, Manager
U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970 MSIN: B3-01
Richland, WA 99352

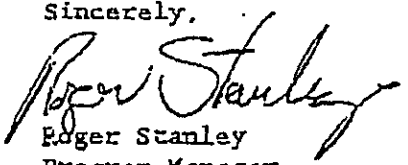
Dear Messrs. Wagoner and Anderson:

Enclosed is Order No. 93NM-201. It is issued to both the U.S. Department of Energy-Richland Operations and to Westinghouse Hanford Company, and both parties are responsible for complying with its terms. Because the matters addressed in the Order are not part of the work covered by the Hanford Federal Facility Agreement and Consent Order, Ecology is exercising its authority to act outside that Agreement with respect to the Department of Energy-Richland Operations.

All correspondence relating to this document should be directed to Laura Fussell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102, Kennewick, WA 99336. A copy should also be sent to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. This Order may be reviewed or appealed as set forth under the provisions contained within the order document.

If you have any questions concerning the content of the document, please call G. Thomas Tebb, RCRA Unit Supervisor, at (509) 736-3020 or Roger Stanley, Program Manager, at (206) 438-7020.

Sincerely,


Roger Stanley
Program Manager
Nuclear and Mixed Waste Management

RS:ln
Enclosure

DEPARTMENT OF ECOLOGY

IN THE MATTER OF COMPLIANCE BY)
U.S. Department of Energy -)
Richland Operations and the)
Westinghouse Hanford Company)
with Chapter 70.105 RCW and the)
Rules and Regulations of the)
Department of Ecology)

ORDER
No. 93NM-201

TO: U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

AND TO: Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Chapter 173-303 Washington Administrative Code (WAC), entitled "Dangerous Waste Regulations", designates those solid wastes which are dangerous or extremely hazardous to the public health and environment, and provides for surveillance and monitoring of dangerous wastes until they are detoxified, reclaimed, neutralized, or disposed of safely. The wastes generated from maintenance-type activities at the 200 Area tank farm facilities located on the Hanford Site in Richland, Washington, are solid waste (173-303-016(4)) and therefore subject to designation and appropriate management under Chapter 173-303 WAC.

The United States Department of Energy-Richland Operations (herein referred to as DOE-RL) is the owner of the Hanford Site in Richland, WA, including the 200 Area tank farm facilities located thereon. Westinghouse Hanford Company (herein referred to as WHC) is the operator of the 200 Area tank farm facilities located on the Hanford Site in Richland, WA. WHC manages, operates, and maintains these facilities pursuant to a contract with DOE-RL. DOE-RL and WHC are persons whose acts or processes produce dangerous waste or whose acts first cause a dangerous waste to become subject to regulation (WAC 173-303-040).

On January 23, 1992, DOE-RL received notification through WHC's Occurrence Reporting procedure that waste management problems existed in the 200 Area tank farms. As required through DOE Orders, on January 24, 1992, DOE-RL issued Unusual Occurrence (UO) Report #RL-WHC-TANKFARM-1992-0007, citing deficiencies in solid waste environmental compliance issues. The UO cited deficiencies with "both administrative controls and issues pertaining to container packaging, inventories, and storage."

Facility inspection by the Washington State Department of Ecology (Ecology) on August 31, 1992, record review of documents including WHC audits and surveillances from 1989 through 1992, and Unusual Occurrence Report #RL-WHC-TANKFARM-1992-0007, revealed that DOE-RL and WHC are not in compliance with the Dangerous Waste Regulations, Chapter 173-303 WAC, as follows:

DOE-RL and WHC have failed to designate approximately 2,000 containers of solid waste in violation of WAC 173-303-170(1)(a) and the procedures of WAC 173-303-070.

The containers consist of 55-gallon steel drums and wooden burial boxes.

Revised Code of Washington (RCW) 70.105.095 reads in part: "Whenever on the basis of any information the Department determines that a person has violated or is about to violate any provision of this chapter, the department may issue an order requiring compliance either immediately or within a specified period of time."

In view of the foregoing and in accordance with RCW 70.105.095:

IT IS ORDERED THAT the United States Department of Energy-Richland Operations and Westinghouse Hanford Company designate the solid waste within the 200 Area tank farm waste containers identified in EO Report #RL--WHC-TANKFARM-1992-0007 within one year of receipt of this Order. The following designation and reporting requirements are in accordance with WAC 173-303-070 and WAC 173-303-220, respectively.

Interim steps toward compliance are modeled, in part, after two corrective action plans that WHC has presented to Ecology for achieving compliance at the 200 Area tank farms: a Corrective Action Schedule (presented August 19, 1992) and a Strategy for Management of Backlog Waste (presented November 6, 1992).

1. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying the current status for each waste container identified in this Order. Individual container status shall be documented by completing WHC's Backlog Waste Information Sheets or equivalent. Copies of each individual container Backlog Waste Information Sheet or equivalent shall be provided.
2. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying dangerous waste designation practices currently in place for ongoing waste generation within the 200 Area tank farms. Copies of waste designation procedure(s) governing 200 Area tank farm waste generation shall be provided with the report.
3. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval detailing the established criteria and procedures for waste inspection, segregation, sampling, designation, and repackaging of all containers reported in item #1. The report shall include sampling plan criteria for different contaminated media, i.e., soils, compactable waste, high efficiency particular air (HEPA) filters, etc., and a schedule for completing the work within the time allowed under this Order.

4. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval documenting the readiness of an appropriate area for waste inspection, segregation, sampling, and repackaging of all waste containers identified in item #1.
5. Immediately upon approval from Ecology for items #3 and #4 of this Order, DOE-RL and WHC shall implement the respective plan(s).
6. Within sixty (60) calendar days of receipt of this Order, DOE-RL and WHC shall ship all containers of dangerous waste and suspected dangerous waste identified in item #1 to an on-site facility which meets interim status facility standards under WAC 173-303-400.
7. Within ninety (90) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report documenting progress in waste inspection, segregation, sampling, designation, and repackaging of each waste container identified in item #1.
8. Within one (1) calendar year of receipt of this Order, DOE-RL and WHC shall complete waste designations for all containers identified in item #1.
9. Within one (1) calendar year of receipt of this Order, DOE-RL and WHC shall submit to Ecology a report detailing the final designation and selected waste management option for all containers identified in item #1. The report shall include, for each container, a description of the waste (e.g., common name/dangerous constituent(s), dangerous waste number(s), physical form), the waste classification (e.g., low-level waste, dangerous waste, mixed waste), copies of all field/laboratory analyses, and the treatment or disposal date and location (past or pending).

Compliance with this Order does not relieve DOE-RL or WHC of responsibility for compliance with any applicable federal, state, or local laws or ordinances.

Any person who fails to take corrective action as specified in a compliance order shall be liable for a civil penalty of not more than ten thousand dollars per violation, for each day of continued noncompliance. Noncompliance with any section or subsection of Chapter 173-303 WAC constitutes a separate violation. In addition, the Department may suspend or revoke any permits and/or certificates issued under the provisions of this Chapter to a person who fails to comply with an order directed against him or her.

This Order is issued under the provisions of Chapter 70.105 RCW. Any person aggrieved by this Order may obtain review thereof by application, within thirty (30) days of receipt of this Order, to the Washington Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903. Concurrently, a copy of the application must be sent to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102,

ORDER No.: 93NM-201
March 10, 1993
Page 4

Kennawick, WA 99336 and to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. The procedures for appealing orders and/or penalties issued by the Department of Ecology are set forth in Chapter 43.21B RCW and the regulations adopted thereunder.

DATED this 10TH day of March, 1993, at Olympia, Washington.



Roger Stanley, Program Manager
Nuclear and Mixed Waste Management Program
Department of Ecology

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APPENDIX B-7A

RESPONSE TO NOTICE OF NONCOMPLIANCE FAILURE TO DESIGNATE
SOLID WASTE CONTAINERS

The U.S. Department of Energy, Richland Field Office formally has not responded to this Notice of Noncompliance as of the submitted date of this Notice of Intent.

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APPENDIX B-8

NOTICE OF PENALTY FAILURE TO DESIGNATE SOLID WASTE CONTAINERS

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

March 10, 1993

CERTIFIED MAIL

Mr. John Wagoner, Manager
U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970 MSIN: B3-01
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Enclosed is Notice of Penalty Incurred and Due No. 93NM-202. This Penalty is issued to both the U.S. Department of Energy-Richland Operations and Westinghouse Hanford Company. Because this Penalty is issued for the violation of a requirement that is not part of the work covered by the Hanford Federal Facility Agreement and Consent Order, Ecology is exercising its authority to act outside that Agreement with respect to the Department of Energy-Richland Operations.

All correspondence relating to this document should be directed to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102, Kennewick, WA 99336. A copy should also be sent to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. If you have any questions concerning the content of the document, please call G. Thomas Tebb, RCRA Unit Supervisor, at (509) 736-3020 or Roger Stanley, Program Manager, at (206) 438-7020.

The Penalty is assessed at \$100,000.

This Penalty may be reviewed or appealed as set forth under the provisions contained within the penalty document.

Sincerely,

Roger Stanley
Program Manager
Nuclear and Mixed Waste Management

RS:lm
Enclosure

DEPARTMENT OF ECOLOGY

IN THE MATTER OF ASSESSMENT)
OF PENALTY AGAINST)
U.S. Department of Energy -)
Richland Operations and the)
Westinghouse Hanford Company)
 No. 93NM-202

TO: U.S. Department of Energy-Richland Operations
 P.O. Box 550
 Richland, WA 99352

AND TO: Westinghouse Hanford Company
 P.O. Box 1970
 Richland, WA 99352

Notice is hereby given that you have incurred, jointly and severally, and there is now due from you, a penalty in the amount of \$100,000 under the provisions of the Revised Code of Washington (RCW) 70.105.080.

The United States Department of Energy-Richland Operations (herein referred to as DOE-RL) is the owner of the Hanford Site in Richland, Washington, including the 200 Area tank farm facilities located thereon. Westinghouse Hanford Company (herein referred to as WHC) is the operator of the 200 Area tank farm facilities located on the Hanford Site in Richland, Washington. WHC manages, operates, and maintains these facilities pursuant to a contract with DOE-RL. DOE-RL and WHC are persons whose acts or processes produce dangerous waste or whose acts first cause a dangerous waste to become subject to regulation (WAC 173-303-040).

On January 23, 1992, DOE-RL received notification through WHC's Occurrence Reporting procedure that waste management problems existed in the 200 Area tanks farms. As required through DOE Orders, on January 24, 1992, DOE-RL issued Unusual Occurrence (UO) Report #RL--WHC-TANKFARM-1992-0007 citing deficiencies in solid waste environmental compliance issues. The UO cited deficiencies with "both administrative controls and issues pertaining to container packaging, inventories, and storage." The wastes generated from maintenance-type activities at the 200 Area tank farms are solid waste (173-303-016(4)) and therefore subject to designation and appropriate management under Chapter 173-303 WAC.

Facility inspection by the Washington State Department of Ecology (Ecology) on August 31, 1992, record review of documents including WHC audits and surveillances from 1989 through 1992, and Unusual Occurrence Report #RL--WHC-TANKFARM-1992-0007, revealed that DOE-RL and WHC were not in compliance with the Dangerous Waste Regulations, Chapter 173-303 WAC, as follows:

DOE-RL and WHC have failed to designate approximately 2,000 containers of solid waste in violation of WAC 173-303-170(2)(a) and the procedures of WAC 173-303-070.

The containers consist of 55-gallon steel drums and wooden burial boxes.

PENALTY No. 93NM-202

March 10, 1993


Page 2

The penalty described is due and payable by you within thirty (30) days of your receipt of this Notice. Please remit the penalty, payable to Fiscal Cashier, Department of Ecology, Mail Stop 7613, Olympia, WA 98504-7613. If, however, for any reason you believe the violation herein described did not occur, or that you have an explanation as to why it occurred, or any other fact which you believe the Department should consider with regard to this penalty, and desire to submit an "APPLICATION FOR RELIEF FROM PENALTY," you should set forth these facts on the enclosed form and return it to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102, Kennewick, WA 99336, within fifteen (15) days of your receipt of this Notice of Penalty Incurred and Due. This form must be signed under oath before a notary public or any other person authorized to take oaths. A copy must also be sent to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600.

Upon receipt of an "APPLICATION FOR RELIEF FROM PENALTY," the Department will consider the same and will either reduce the penalty, cancel the penalty, or allow it to remain as originally issued. You will be duly notified by the Department of its action. Once the notification has been received, you may obtain review of the Department's determination with the Pollution Control Hearings Board.

Any person aggrieved by this penalty or by the Department's decision in response to an "Application for Relief From Penalty" may obtain review thereof by application, within thirty (30) days of receipt, to the Washington Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903. Concurrently, a copy of the application must be sent to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102, Kennewick, WA 99336. A copy should also be sent to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. The procedures for appealing orders or penalties issued by the Department are set forth in Chapter 43.21B RCW and the regulations adopted thereunder.

DATED this 10TH day of March, 1993, at Olympia, Washington.


Roger Stanley, Program Manager
Nuclear and Mixed Waste Management Program
Department of Ecology

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT) APPLICATION FOR RELIEF
OF PENALTY AGAINST) FROM PENALTY No. 93NM-202
U.S. Department of Energy -)
Richland Operations and the)
Westinghouse Hanford Company)

To: Laura Russell
State of Washington
Department of Ecology
7601 W. Clearwater, Suite 102
Kennewick, Washington 99336

Westinghouse Hanford Company has received your "NOTICE OF PENALTY INCURRED AND --
DUE" dated _____ and numbered 93NM-202, which states that the
United States Department of Energy-Richland Operations and Westinghouse
Hanford Company have been penalized \$100,000.

I have further read and understand Revised Code of Washington (RCW) 9A.72.030
which prescribes penalties for the making of false statements. I hereby make,
under oath and on behalf of Westinghouse Hanford Company, application for
mitigation or remissions of the aforementioned penalty for the following
reasons:

I swear that the foregoing is a true, full, and complete statement of the
facts of this case.

By: _____

SUBSCRIBED AND SWORN to before
this _____ day of _____, 19__.

NOTARY PUBLIC in and for the State
of Washington.
My commission expires
_____.

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03/31/93

APPENDIX B-8A

RESPONSE TO NOTICE OF PENALTY FAILURE TO DESIGNATE SOLID WASTE CONTAINERS

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Department of Energy

Richland Operations Office
P.O. Box 550
Richland, Washington 99352

93-RPB-149

MAR 26 1993

Ms. Laura Russell, RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 Clearwater, Suite 102
Kennewick, Washington 99336

Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Russell and Enforcement Officer:

APPLICATION FOR RELIEF FROM PENALTY NO. 93NM-202

Enclosed is an Application for Relief from Penalty from the U.S. Department of Energy, Richland Field Office (RL) and Westinghouse Hanford Company (WHC) in response to the Notice of Penalty No. 93NM-202. RL and WHC are applying for mitigation or remission of the aforesaid penalty. Several factors, as discussed in the response, support mitigation of the penalty.

Should you have any questions regarding this Relief from Penalty Application, please contact Mr. C. E. Clark of RL on (509) 376-9333 or J. R. Kaspar of WHC on (509) 373-2728.

Sincerely,

James D. Bauer
James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Field Office

R. E. Lerch

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosure

cc w/encl:
R. F. Stanley, Ecology

cc w/o encl:
H. D. Harmon, WHC
G. W. Jackson, WHC
R. E. Lerch, WHC
P. J. Mackey, WHC

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF ASSESSMENT OF
PENALTY AGAINST

U.S. Department of Energy
- Richland Operations and
Westinghouse Hanford Company

No. 93NM-202

APPLICATION FOR RELIEF
FROM PENALTY

TO: Laura Russell, RCRA Compliance Inspector
Washington State Department of Ecology
7601 W. Clearwater, Suite 102
Kennewick, WA 9936

AND TO: Department of Ecology
Enforcement Office
P.O. Box 47600
Olympia, WA 98504-7600

U.S. Department of Energy-Richland Operations (DOE-RL) and Westinghouse Hanford Company (WHC) have received your "NOTICE OF PENALTY INCURRED AND DUE" dated March 10, 1993 and numbered 93NM-202, which states that the DOE-RL and WHC have been penalized \$100,000.

The undersigned have further read and understood Revised Code of Washington (RCW) 9A.72.030 which prescribes penalties for the making of false statements. We hereby make, under oath and on behalf of DOE-RL and WHC, application for mitigation or remission of the aforesaid penalty for the reasons set forth below.¹

¹ DOE-RL and WHC do not agree with the assertion in Ecology's cover letter dated March 10 that the Penalty "is issued for the violation of a requirement that is not part of the work covered by the Hanford Federal Facility Agreement and Consent Order (FFACO)." Page 1, Paragraph 2 of the

I. STATEMENT OF FACTS

9319031217
The penalty in this case is assessed for failure to designate approximately 2,000 containers of solid waste, in violation of WAC 173-303-170(1)(a) and the procedures of WAC 173-303-070. The penalty was accompanied by an Order to take action to move the containers and complete designation. DOE-RL and WHC do not challenge the substantive basis for the penalty, although the following history is pertinent to mitigation of the penalty. Designation and managing of solid waste, particularly as relates to contaminated soil, has been the topic of ongoing discussions between the Department of Ecology (Ecology), DOE-RL, and WHC for several years.

In 1989, WHC implemented a program to prevent the spread of radioactive contamination within and from the 200 Area tank farms.² WHC workers are instructed to locate, remove, and containerize contaminated surface soil which is discovered to have elevated radiation levels. There are approximately

FFACO states: "Resource Conservation and Recovery Act (RCRA) compliance, and treatment, storage and disposal (TSD) permitting, closure, and post-closure care (except Hazardous and Solid Waste Amendments corrective action) shall be governed by Part 2 of this Agreement." Paragraph 28 states that "if Ecology determines that DOE is violating any RCRA permit or interim status requirement or other applicable requirement," it will give DOE written notice, and that any disputes concerning the alleged violation or DOE's response will be subject to dispute resolution. DOE-RL is filing for "Dispute Resolution" under paragraph 28 of the FFACO since this is the appropriate forum for discussions on this matter to occur.

² As has been indicated on previous occasions when this issue has arisen, it is not accurate to refer to WHC as an "operator." WHC does not have responsibility for the "overall operation" of the Hanford facility or any individual unit, as required by the definition of "operator" in WAC 173-303-040. DOE-RL is responsible for overall management and operation of the Hanford facility. WHC is responsible for certain day-to-day activities on particular units, including the 200 Area tank farms. DOE-RL and WHC do not press this point in this application, but reserve the right to raise the issue in any enforcement or permitting activities.

8 million square feet of surface contaminated soil in the tank farms. It is estimated that this will require 1.8 million drums to containerize. This program is intended to prevent the further spread of contamination by wind and rain, thus reducing or at least limiting the future cost of cleanup. Besides soil, other containers that are subject to this penalty contain debris and equipment which have been contaminated during maintenance or cleanup activities, but are not believed to have been in direct contact with tank wastes. Approximately one-third of these containers are known to contain only soil.

Since 1990, DOE-RL and WHC have held discussions with Ecology in regards to the management of contaminated soil and debris not in direct contact with RCRA listed waste as LLW, to analyze contaminated soil against cleanup standards, and establish disposal criteria. See letter dated April 25, 1990, R. Izatt, DOE-RL to T. Nord, Ecology (Exhibit A). The legal status of contaminated soil involves complex issues including the "contained-in" rule, since it presumably contains RCRA listed waste. DOE-RL sent a letter to Ecology dated June 5, 1991 (Exhibit B) stating DOE-RL's intent to adopt "designation limits for listed waste contaminated soil" based on RCRA health-based standards. October 20, 1992, Hanford Project Managers Meeting Minutes document agreement to form an interagency team to establish criteria for the disposition of this waste (Exhibit C). December 14, 1992 Contaminated Media Task Team meeting minutes document agreements regarding the technical status, management strategy options, and proposed resolution for the management of this waste (Exhibit D). Ecology adopted the RL recommendation statewide. See

Memorandum dated February 19, 1993 from T. Eaton to All Hazardous Waste Staff (Exhibit E).

DOE-RL and WHC performed a series of audits and surveillances beginning in 1989 through 1992 which identified deficiencies in solid waste management at Tank Farms. These RL and WHC audits and surveillances culminated in a self assessment by WHC which led to WHC's declaration of the Unusual Occurrence Report #RL-WHC-TANKFARM-1992-0007 on January 23, 1992. DOE-RL assigned a Task Team in February 1992 to perform a Special Surveillance on Tank Farms management of solid waste which resulted in the issuance of Special Surveillance Report No. TFP-ADT-92-010 which was issued to WHC, for comment on factuality and understanding, on September 18, 1992. This report, finalized in January 1993, identified deficiencies in the management of solid waste at Tank Farms.

RL and WHC implemented a program to designate and manage the estimated 2000 drums of backlog waste in Tank Farms. Elements of this program formed the basis for Order 93NM-201 which was issued by the Washington State Department of Ecology to DOE-RL and WHC and which related to non-compliance with State dangerous waste regulations and referred to the Unusual Occurrence Report #RL-WHC-TANKFARMS-1992-0007. When Order 93NM-201 was issued, March 10, 1993, this program was already being implemented.

II. ARGUMENTS IN FAVOR OF MITIGATION

DOE-RL and WHC do not challenge the substantive basis for this penalty,³ and acknowledge that the delay in resolving the issues surrounding designation and handling of the containers warrants enforcement action. However, DOE-RL and WHC submit that the penalty imposed should be mitigated and an alternate remedy should be devised.

The penalty here was assessed under RCW 70.105.080, which does not specify the factors to be considered in assessing the penalty. However, the Pollution Control Hearings Board (PCHB) reviews penalties under this section in light of "several factors bearing on reasonableness in light of statutory aims." Ross Electric of Washington, Inc. v. Dept. of Ecology, PCHB No. 86-225 (Feb. 7, 1989). Further, Comet Trailer Mfg. Corp. v. Dept. of Ecology, PCHB No. 91-121 (December 31, 1992) states those factors that have been considered by the PCHB as follows:

The factors we look at in reviewing the appropriateness of a civil penalty include the nature of the violations, including severity and extent; the prior behavior of the violator; actions taken after the violations to solve the problem, particularly those actions taken prior to issuance of an order; and the maximum amount of penalty assessment possible.

Several of the above factors are evidenced in this instance and favor mitigation of the penalty.

³ DOE-RL and WHC reserve the right to raise any issues regarding application of the "contained-in" policy or the disposal of contaminated soil in any future proceedings or negotiations.

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designate them as mixed waste as part of the backlog waste process.⁴ However, it is important to note that none of this waste was improperly disposed of, nor was it uncontrolled. As LLW, it was containerized. The containers and area were managed as LLW inside radiation control areas in accordance with radiological control practices in place at that time.

B. Prior Behavior of DOE-RL and WHC.

DOE-RL, WHC and Ecology had ongoing discussions regarding the contaminated soil for a period of over two years. These discussions constituted a good faith effort to comply in an area in which there is inadequate regulatory guidance.

Further, DOE-RL and WHC were at the time relying in part on Ecology's Technical Information Memorandum (TIM) 82-5, dated August 2, 1982. (Exhibit F). This brief document states that the normal 90-day storage period does not commence until a generator has adequate knowledge, based on testing and analysis of data, to designate his waste as dangerous. This TIM obviously does not excuse a failure to designate where designation was clearly required. See Northwest Processing, Inc. v. Dept. of Ecology, PCHB Nos. 89-141 and -143 (July 18, 1991) at 11-12 (holding that under regulations and TIM flammable materials had to be designated within a reasonable period of time.) However, where as here the basis and need for designation was under debate, the TIM

⁴ Note, however, that EPA's land disposal regulations for debris have recently taken the position that contaminated debris, whether originally "waste" or not, will be excluded from the definition of hazardous waste if it does not exhibit a dangerous waste characteristic and is determined, considering the extent of contamination, to no longer contain hazardous waste. 40 CFR 261.3(f); 57 Fed. Reg. 37225-26 (August 18, 1992); 57 Fed. Reg. 982, 985-87 (January 9, 1992).

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implies that a further delay may be allowable before a material becomes subject to RCRA. Based on discussions with Ecology representatives, we believe that reliance on TIM 82-5 was not taken into account in the penalty assessment.

C. Actions Taken After the Violation.

It is not clear from the Notice of Penalty just when the violation is considered to have occurred. However, it is clear that WHC had undertaken a plan to move all the containers from Tank Farms as a result of its own self-assessment. By February 24, 1993, before the Order was issued, 2,041 out of a total of 2,466 containers had already been sent to permitted storage in the Central Waste Complex.

III. ALTERNATIVE REMEDIES

DOE-RL and WHC concede that enforcement action is appropriate here, but submit that the factors listed above have not been adequately considered. Without disputing the amount of the penalty, DOE-RL and WHC submit that, in light of mitigating factors and in the public interest, they should be permitted to use the funds for environmental work on the Hanford site rather than simply depositing them in the hazardous waste control fund pursuant to RCW 70.105.180. Ecology has in several previous cases agreed to credit or abate large portions of a penalty for money spent on environmental compliance: restoration, or education projects. See e.g., Port of Tacoma v. Dept. of Ecology, PCHB No. 90-217 (Oct. 16, 1991) (\$45,000 spent on stormwater management project credited in full against penalty); Safco, Inc. v. Dept. of Ecology, PCHB No. 88-58, -65, -66 (June 28, 1989) (dollar for dollar credit for up to \$27,000 of environmental compliance expenditures against \$37,000

penalty). Such a project is consistent with Ecology's Enforcement Manual, at 7-9, on "innovative settlements." It is also consistent with increased approval of "supplemental environmental projects" by EPA. See, e.g., Harbor Universal, Inc., RCRA Docket No. 09-92-0001 (giving dollar for dollar credit for pollution prevention plan).

DOE-RL and WHC wish to discuss projects which might be undertaken in lieu of the penalty which has been assessed. We wish to identify with Ecology suitable projects comparable in scope to the size of the penalty. For example, Ecology could credit against the penalty the cost of an expedited remedial action to be identified in further discussions.

IV. REQUEST FOR MEETING

In view of the special circumstances of this case, DOE-RL and WHC request a meeting with the Department Director to discuss this application. DOE-RL and WHC also request that prior to such a meeting they be provided copies of the worksheets or other documents used to determine the amount of the penalty imposed, so that all sides can consider which factors were addressed in assessing the penalty. DOE-RL is filing for "Dispute Resolution" under paragraph 28 of the FFACO. The informal dispute resolution process called for under the FFACO will provide the appropriate forum for these discussions.

The undersigned swear that the foregoing is a full, true, and complete statement of the facts of this case.

U.S. DEPARTMENT OF ENERGY-RICHLAND
OPERATIONS

By: *John D. Wagoner*
John D. Wagoner, Manager

Subscribed and sworn to before me this 26th day of March, 1993.

Eunice A. Renscho
NOTARY PUBLIC in and for the State of
Washington, residing at Richland
My appointment expires 4/19/93

WESTINGHOUSE HANFORD COMPANY

By: *Thomas M. Anderson*
Thomas M. Anderson, President

Subscribed and sworn to before me this 26th day of March, 1993.

Loretta G. Pritchett
NOTARY PUBLIC in and for the State of
Washington, residing at Richland
My appointment expires 12-5-96

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Exhibit A

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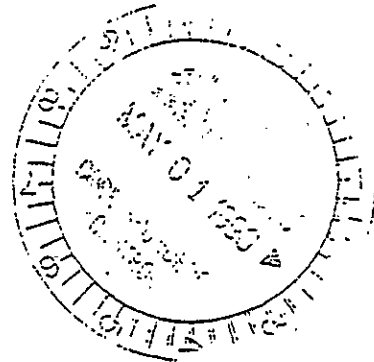
Department of Energy

Richland Operations Office

P.O. Box 550

Richland, Washington 99352

APR 25 1990



Mr. Timothy L. Nord
Hanford Project Manager
Washington Department of Ecology
Mail Stop PV-11
Olympia, Washington 98504-8711

Dear Mr. Nord:

SOLID WASTE

As you know, double-shell tank waste was recently designated as F003 (spent nonhalogenated solvents). This designation created a number of concerns relative to proper management of solid wastes which might be considered "derived from" forms of listed waste. This letter is to inform you of our intended management practices relative to solid wastes that are, or could be construed as, listed waste. As required by Washington Administrative Code 173-303, solid waste generators onsite intend to designate their waste in accordance with the following guidelines effective June 1, 1990:

- o Solid waste that has not been in direct contact with tank farm liquid waste (and is otherwise nonregulated) will be disposed of as low-level radioactive waste.
- o Equipment that has been flushed, rinsed, or otherwise decontaminated will be managed as low-level radioactive waste. For example, drill string and pumps removed from tanks. Rinsate from decontamination will be returned to tank farms.
- o Solid waste that has been in direct contact with tank farm liquid waste will be managed as listed waste. For example, rags, absorbent or other materials used to clean up equipment or spills; clothing that is saturated with waste and failed equipment that can not be decontaminated before disposal.
- o Soil contaminated by a leak will be sampled and analyzed for listed waste constituents. If listed waste constituents are below approved cleanup criteria the material will be managed as low-level waste. We would like to schedule a meeting at your earliest convenience to establish disposal criteria.
- o Launderable articles that have had no contact or only incidental contact with tank waste will continue to be processed in the 200 West Area laundry facility. Laundered articles that are not reusable will be disposed of as low-level radioactive waste.

Mr. Timothy L. Nord

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APR 25 1990

o Laboratory samples of tank waste will be returned to the tank unless archived. Associated solid wastes will be handled as described above.

If you would like to discuss any of the above practices in further detail, please contact Mr. A. J. Knepp, U.S. Department of Energy, Richland Operations Office, on (509) 376-1471, or Ms. L. A. Garner, Westinghouse Hanford Company, on (509) 373-5969.

Sincerely,

R. D. Gatt

R. D. Gatt, Director
Environmental Restoration Division
Richland Operations Office

ERD:AJK

R. E. Lerch

R. E. Lerch, Manager
Environmental Division
Westinghouse Hanford Company

cc: P. T. Day, EPA
R. E. Lerch, WHC

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Exhibit B

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Department of Energy

Richland Operations Office

P.O. Box 550

Richland, Washington 99252

9102455

JUN 5 1991

91-EAS-119

Mr. Terry Husseman, Assistant Director
State of Washington
Department of Ecology
Mail Stop PY-11
Olympia, Washington 98504-2711

Dear Mr. Husseman:

MANAGEMENT OF CONTAMINATED SOIL

Radiological surveys of Tank Farm facilities show that there are approximately eight million square feet of radioactive contaminated soil within the Tank Farms. This soil is exposed to both wind and weather and as a result, the contamination is continually spreading. The U.S. Department of Energy's (DOE) responsibilities under the Atomic Energy Act to control the spread of radioactive contamination and the potential for exposure to personnel require that action be taken.

In order to reduce the spread of radioactive contamination at the Hanford Site, the DOE, Richland Operations Office (RL) is compelled to implement a surface contamination remediation program. Implementation of this program in the Tank Farms area may require excavation of large volumes of contaminated soil that will require management. This contamination may have been generated from waste in the single-shell or double-shell tanks which originated from a listed waste source. Preliminary sample data obtained from the Tank Farms indicates that listed waste constituents either have not been detected or have been detected at concentrations below health-based standards. The DOE-RL proposes to manage soil that contains concentrations of listed waste below health-based standards as low-level waste.

In a letter dated September 25, 1990, to R. O. Izatt, DOE-RL and R. E. Larch, Westinghouse Hanford Company to Mr. Nord of your staff indicated that further excavation associated with removal of the 703-1 Tank was not warranted because contamination levels were below health-based standards. It is important to note that this tank did contain listed dangerous waste and was operated as a less than 90-day accumulation tank. Further, in the attached June 19, 1989, letter (attachment 1) and February 28, 1990, memorandum (attachment 2), the U.S. Environmental Protection Agency (EPA) has indicated that soil and groundwater that are contaminated with listed hazardous waste require management as a hazardous waste as long as



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Mr. Terry Husseman

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JUN 5 1991

they contain the listed waste constituents of concern. To contain the listed waste, the EPA has indicated that listed waste constituents in environmental media must be present above health-based standards.

As you know, cleanup costs at the Hanford Site are increasing. Adopting the EPA guidance for soils containing listed waste constituents below health-based standards will reduce cleanup costs as well as reduce radioactive surface contamination while ensuring protection of human health and the environment.

Effective July 1, 1991, the DOE-RL intends to adopt health-based standards as designation limits for listed waste contaminated soil at the Hanford Site. All waste designation decisions for listed waste contaminated soil will be based on EPA's health-based standards proposed under Section 3004(u) of the Resource Conservation and Recovery Act.

If you should have further questions concerning this management practice, please contact Ms. Sandy Trine, DOE-RL, at (509) 376-6943.

Sincerely,



Leo E. Little, Assistant Manager
for Environmental Management

ERD:SLT

cc: T. L. Nord, Ecology
P. T. Day, EPA
R. E. Larch, WHC
W. H. Hamilton, WHC

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Exhibit C

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Meeting Minutes Transmittal/Approval
Hanford Project Managers Meeting
Richland, Washington
October 20, 1992

From/ Appvl.: 11/11/92
Steven H. Wisness, RL (A5-19)
Hanford Project Manager

Date: 11/19/92

Appvl.: Paul T. Day
Paul T. Day, EPA (B5-01)
Hanford Project Manager

Date: 11/19/92

Appvl.: David B. Jansen
David B. Jansen
Hanford Project Manager

Date: 11/19/92

Prepared by Appvl.: F. T. Calapristi
F. T. Calapristi
Westinghouse Hanford Company

Date: 11/19/92

DISTRIBUTION

L. D. Arnold	WHC	B2-35	R. D. Morrison	WHC	B2-35
B. A. Austin	WHC	B2-35	D. Nylander	Ecology	Kennewick
C. E. Clark	RL	A5-15	D. B. Pabst	WHC	B2-35
P. T. Day	EPA	B5-01	J. Patterson	WHC	L4-92
F. T. Calapristi	WHC	B2-35	S. Price	WHC	H4-57
C. Edwards	WHC	B3-35	J. H. Rasmussen	RL	A5-15
J. Erickson	RL	A5-19	F. A. Ruck III	WHC	H4-57
M. Getchell	Ecology	Lacey	L. Russell	Ecology	Kennewick
C. C. Haass	SWEC	A5-15	G. Senat	RL	R2-62
G. Jackson	WHC	B2-35	A. Stephan	WHC	B3-35
D. B. Jansen	Ecology	Olympia	J. Stohr	Ecology	Lacey
R. A. Krekel	RL	A5-15	G. T. Tebb	Ecology	Kennewick
P. Krupin	RL	A5-19	D. Teel	Ecology	Kennewick
D. W. Lindsey	WHC	B2-35	K. M. Thompson	RL	A5-15
P. J. Mackey	WHC	B3-15	S. H. Wisness	RL	A5-15
H. E. McGuire	WHC	B3-63	J. Yerxa	RL	A5-15
			EDMC	WHC	H4-22

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*Copy coverage for ETS activities--A:PROJECT.OCT

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DOE-RL/CCC

Hanford Project Managers Meeting
October 20, 1992

Project Managers (PM's): Paul Day, Dave Jansen, Steve Wisness
WHC Tri-Party Agreement: B. A. Austin
Recorder: F. T. Calapristi

1. REPLACE QUARTERLY PROGRESS REPORT WITH THE SITE MANAGEMENT SYSTEM/TRI-PARTY AGREEMENT MILESTONE SUMMARY
(+ R. Morrison)

Ron Morrison passed out a comparison report (Attachment 1) of the Quarterly Progress Report and the Site Management System/Tri-Party Agreement Milestone Summary Reports. The SMS/Tri-Party Agreement milestone summary report was sent to the Quarterly Progress Report distribution for the three month trial period (May, June, and July 1992); with a notice to the public to replace the Quarterly Progress Report. No comments were received. EPA asked about the tracking of proposed changes to the legal agreement and action plan of the Tri-Party Agreement. It was noted WHC is keeping a central file of potential Tri-Party Agreement changes pending the next Tri-Party Agreement amendment. It was agreed to review the proposed Tri-Party Agreement changes in the Project Managers Meetings as required. The first review will be in the November Project Managers Meeting.

In additional discussion, Ecology expressed some concern about the level of detail in the Tri-Party Agreement Milestone Summary Report and was uncertain of the public's ability to understand the report. Ecology agreed to replacing the Quarterly Report with the Tri-Party Agreement Milestone Summary Report but suggested a change in format may be required in the future, depending upon public reaction.

2. USE OF HEALTH-BASED STANDARDS IN DESIGNATING AND MANAGING SOLID WASTE
(+ G. W. Jackson, P. J. Krupin, H. E. McGuire, D. Nylander, J. Rasmussen, C. Clark)

Dave Jansen discussed Ecology's position on the interim disposition of lightly contaminated soils in the 200 Area, to be based either on health-based standards or LDR standards; depending upon an evaluation of each case. Ecology was agreeable to the use of health-based and/or LDR limits as criteria for disposal decisions, but this may have to be tailored to the waste is being dispositioned.

There was some discussion about the alternative of delisting waste when it drops below health-based standards. However, this does not automatically delist the waste.

There were two issues identified, which will require additional discussion:

1. The characterization and designation of waste
2. How to dispose of the waste

Both of these issues apply to drummed waste and soil waste.

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5. PROPOSED CHANGE REQUEST - 100-D POND CLOSURE PLAN (+ D. Nylander, K. M. Thompson, J. Erickson, L. Arnold, J. Rasmussen)

Bob McLeod of RL reported EPA and Ecology have received a draft of the proposed Change Request (Attachment 2) and RL provided a further explanation of the proposed plan. Ecology expressed their concerns about 100-D Pond as an Expedited Response Action (ERA).

EPA stated 100-D Pond is a TSD operating facility and will require a closure plan. RL was concerned about the difficulty in completing a RCRA closure plan, based on previous experience. Ecology recognized there were problems in the past but suggested RL proceed with the closure plan approach. It was agreed all parties will get together to develop a closure plan.

Ecology stated RL can proceed with sludge removal as an operating unit; with early regulatory involvement to assure compliance with closure decisions.

6. ISSUE RESOLUTION/100-N-1 AND 100-DR-2 (+ S. Cross, E. Goller, J. Erickson, J. K. Patterson, F. Ruck)

Steve Cross presented the Ecology position on the issue which was unresolved at the Unit Manager level (Attachment 3). The issue centered around the scheduling of remediation, the schedule for facility shutdown and N-Reactor funding.

Ecology was concerned about the effect of non Tri-Party Agreement work on Tri-Party Agreement activities, particularly when Ecology has no insight on the non Tri-Party Agreement activity.

The conclusion was to have:

1. RL to provide Ecology and EPA an official RL comparison of high priority 100-N-1 Waste Sites vs active N-Reactor systems. Ecology will work with informal documentation until formal notification is received from RL.
2. RL to provide Ecology with a revised copy of the N-Reactor Shutdown Program Plan, Volume I, Rev 3.
3. RL to coordinate ER intrusive remediation activities with the N-Reactor shut down activities and evaluate high priority actions
4. Ecology will elevate the budget issue to the next level under the Issue Resolution procedure (Members of the Dispute Resolution Committee). Ecology will revise the Issue Resolution Worksheet, prior to submittal to the next level, to reflect Ecology's concern about N-Reactor shutdown funding.

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7. PUBLIC INVOLVEMENT (+ M. Getchell, J. Stohr, A. Stephen, C. Edwards)

A. November Public Meetings

- Mary Getchell reviewed the draft agenda for the November 18 Tri-Party Agreement Quarterly Public Meeting. Changes were made to the agenda as suggested by the group, including the addition of a topic for "Past Practice Cleanup".
- The schedules for the public meetings were reviewed.
 - Tri-Party Agreement Quarterly Meeting: November 17 and 18
 - Five Year Plan: November 17, 18, and 19

WHC reported the Five Year Plan schedule is tentative and will probably slip to December; consequently, there is no schedule conflict.

B. Community Relations Plan (CRP)

- Ecology reported the CRP is in draft form and is in continual development. A revised draft CRP will be submitted to the Project Managers on November 13 for review at the November 19 Project Managers Meeting.

8. SELECTED MILESTONE RECAP AND OPEN CHANGE REQUESTS (+ R. Morrison, D. Pabst, D. Lindsey)

Steve Wisness reviewed the status of active Tri-Party Agreement Change Requests (Attachment 4). No issues or action items were identified.

9. USE OF CONTROLLED COPY SYSTEM FOR THE TRI-PARTY AGREEMENT DOCUMENT (Ecology not Present) (+ R. Morrison)

Note: This item was added to the meeting agenda.

Ron Morrison described the present system of uncontrolled distribution of the Tri-Party Agreement. Ron then distributed a comparison sheet of the methods for controlling Tri-Party Agreement distribution (Attachment 5) which was discussed at length.

No final decision was reached. The subject will be added to the November Project Managers Meeting Agenda. However, there was agreement that a receipt system was required for some Tri-Party Agreement copies.

TPA PROJECT MANAGERS MEETING (OCTOBER 20, 1992)

<u>NAME</u>	<u>ORG</u>	<u>MSIN</u>
F.T. CALAPRISTI	WHC/TPA	B2-35
RD MORRISON	WHC/TPA	B2-35
JB PABST	WHC/TPA	B2-35
BA Austin	WHC/TPA	B2-35
J. Stohr	Ecology	Lacey, WA
Nave Nylander	Ecology	Kennwick
Paul Day	EPA	35-01
Steve Wissner	DOE	45-15
Dave Jansen	Ecology	Cl, Wa
Dale Lindsay	WHC/TPA	B2-35
Allan Russell	Ecology	Kennwick
G. THOMAS TEBB	Ecology	Kennwick
Gene Senat	DOE-RL	R2-62
GEORGE JACKSON	WHC	B2-35
Jim Rasmussen	DOE-RL	45-15
CAROLYN CHAASS	SWEC	A4-35
Fred A Rock III	WHC	H4-57
Hank McGuire	WHC	B-3-63
Randal A. Krekel	DOE	45-15
Clifford E. Clark	DOE	45-15
Darci Teel	Ecology	Kennwick
Paz Kropin	RC-EPA	A5-19
Sue Price	WHC/RCRA Permits	H4-57
LARRY ARNOLD	WHC/TPA	B2-35
SIM PATERSON	WHC/ER Program Office	L4-92
JULIE EDICKSON	DOE-RL	45-19
K. Michael Thompson	DOE-RL	45-15

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NAME

ORG

MSIN

Cos Edwards
Annette Stephen
Mary Beth
JOHN YERXA

W H C Com
W H C Com
Ecology
DOE

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B3-35
A5-15

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Exhibit D

MEETING MINUTES

Subject: Management of Environmental Media Contaminated with Listed Waste Constituents

to: Distribution

BUILDING: 740 Stevens

FROM: Contaminated Media Task Team

CHAIRMAN: N/A

Dept-Operation-Component	Area	Shift	Meeting Date	Number Attending
Contaminated Media Task Team	N/A	N/A	December 14, 1992	

Background

On December 14, 1992, the first meeting of the Contaminated Media Task Team was held in Room 2264 of the Stevens Center in Richland. The following persons were in attendance at that meeting:

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Laura Russell, Ecology
Paul Krupin, RL
Nancy Darling, WHC
Ed Smith, WHC

The Task Team was formed by agreement and decision of Tri-Party Agreement Project Managers Dave Jansen, Ecology, Paul Day, EPA Region X, and Steve Wisness, RL on October 20, 1992. The goal of the Task Team is to establish and define the regulatory framework for the management of contaminated environmental media and present this unified approach to Ecology, RL, and EPA Management.

Objective of the Meeting

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The objective of the meeting was to achieve a common definition of the problem so that the Task Team would be working from the same set of baseline information. The Task Team agreed that everyone clearly understanding the context of the discussions and negotiations is a critical factor. Each party must seek to recognize that specific action or outcome which must be achieved in order for the program to succeed. Dedication to the overall success of the program means that each party is committed to resolving any issue that arises. In this case, the goal is a responsible, planned, and controlled remedial action that will achieve the necessary level of cleanup in the environment.

Issue

Will Ecology approve the use of the EPA's "Contained-In Policy" for the management of environmental media contaminated with listed waste?

Discussion

Radioactive mixed waste (RMW) treatment, storage, and disposal (TSD) units at the Hanford Site manage listed dangerous waste. Some of these facilities, such as the tank farms, have released listed wastes to the environmental media surrounding these units. Although the major concern with the cleanup of these areas of contamination is the radiological hazard, the dangerous waste component, which includes listed waste constituents, must be addressed, as well. WHC and RL have approached Ecology's Nuclear and Mixed Waste Management Program (N&MWMP) requesting approval to implement EPA's "Contained-In Policy". The "Contained-In Policy" is an EPA policy interpretation stating that environmental media (soil, groundwater, etc.) contaminated with listed constituents must be managed as a hazardous waste only if the listed waste constituents are present in concentrations above health-based standards. The EPA established this policy because they have determined that environmental media do not meet the definition of a solid waste. Therefore, the mixture and derived-from rules would not apply. EPA recently codified this policy for hazardous debris in 40 CFR Parts 261 and 268.

Ecology has not yet recognized EPA's "Contained-In Policy" interpretation. Additionally, Ecology personnel have asserted that WAC 173-303-070 requires mixtures of environmental media and a listed waste to be managed as a dangerous waste irrespective of the listed constituent concentrations. This means that if listed waste constituents are present at any level, the media must be managed as a dangerous waste.

The impact of this would be that almost all soils, if not all soils, derived from surface remediation activities, would have to be treated, stored and disposed of as a dangerous waste. There are an estimated 8 million square feet of area in the Tank Farms believed to be contaminated above detection levels. The depth to which contamination is found has not yet been determined.

Use of EPA's "Contained-In Policy" with Health Based Standards as the designation limit would significantly reduce the volume of media that would have to be treated, stored and disposed of as dangerous waste while still providing the same level of protection to human health and the environment that cleanup actions under the Washington's Model Toxics Control Act provides. These levels have yet to be decided. The Task Team will evaluate this and make a recommendation.

The Task Team discussed Ecology's use of EPA's "Contained-In Policy" for management of contaminated media. Ms. Russell indicated that Mr. Dave Jansen of Ecology has indicated a willingness to consider using health-based standards for the management of contaminated media at the Tank Farms. Ms. Russell indicated that Mr. Jansen wanted additional information on the characterization of the environmental media before he would consider approving the Contained-In Policy.

The Task Team discussed and clarified the information and proposal contained in prior RL correspondence. WHC and RL explained that the data presented thus far was intended to show that environmental media in the Tank Farms is contaminated with listed waste at very low levels. WHC and RL expressed concern over N&MWMP's desire to require a detailed characterization of the contaminated media before a decision is made on whether health based standards are an appropriate criteria for determining when the media will be managed as a hazardous waste. The Task Team agreed that a characterization of all excavated media is necessary to determine whether the media contains listed waste above a health based standard.

The Task Team discussed the details of the process to be used to develop and reach consensus on a proposed policy for the management of environmental media contaminated with listed waste constituents. The Task Team discussed inviting an Ecology representative

from the Solid and Hazardous Waste Program to join in the Task Team discussions. RL will contact EPA (Paul Day) to identify and invite an appropriate EPA representative to participate in the Task Team.

The Task Team agreed that a structured schedule of meetings intended to address the full gamut of issues presently known or anticipated would be appropriate. The Task Team discussed the idea to develop a joint report and a joint recommendation which would be presented to RL, Ecology and EPA policy level officials for approval. The form of any final agreement was not decided, but the Task Team anticipated that it would be documented in writing which would be signed by Ecology, EPA and RL.

The Task Team will provide all available information, will propose solutions to technical or regulatory problems, and evaluate the practicability of implementing proposed solutions. RL and WHC will provide administrative support necessary to develop and issue the final report. RL and WHC will distribute the report for agency review, comment and discussion. All participants will coordinate review and comment by other individuals at the appropriate levels in their respective organizations. Brainstorming will be encouraged and conducted so as to solicit ideas without evaluation. This will help the participants achieve a clear understanding of any specific problem or problems before moving on to the negotiation of any agreement.

Action Items

Upon completion of this meeting a number of action items were assigned as follows:

WHC/RL:

1. Prepare a presentation for the next meeting of the Task Team to include the following elements:
 - o Technical status of this issue, description of facilities, and associated environmental media contaminated with listed waste constituents;
 - o Regulations and available interpretations supporting use of the "Contained-In Policy";
 - o Management strategy options and evaluation of those options for listed waste contaminated soil;
 - o Proposed issue resolution including proposed characterization plan and risk-based decision methodology;
2. Contact Mr. Paul Day for an EPA representative that can serve on this Task Team.
3. Define a date for the next Task Team meeting by December 18, 1992, and coordinate the upcoming meeting. Tentative date proposed is Tuesday January 26, 1992.

Ecology:

1. Discuss Ecology's consideration for the use of EPA's "Contained-In Policy" with Mr. Dave Jansen, Joe Witczak, Tom Eaton and other Ecology staff members. Evaluate their comments and desires on this matter and identify any concerns with use of this policy.

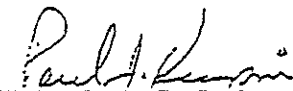
2. Identify and invite a representative from Ecology's Solid and Hazardous Waste Program to participate on this task team.
3. Discuss with other Ecology staff appropriate health-based standards (i.e., MTCA residential or industrial and other potential options, etc.)

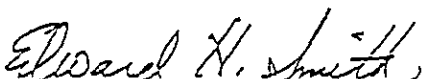
Agreements

WHC, RL and Ecology agreed that a number of follow-up meetings, with the goal of establishing and defining the regulatory framework for the management of contaminated environmental media, are appropriate. A tentative process was discussed as follows:

- Second meeting to include a presentation and discussion based upon completion of the action items defined in these meeting minutes;
- Third meeting to present a draft joint task team report for review and discussion along with a tentative policy recommendation(s);
- Fourth meeting to finalize the joint task team report and recommendation(s);
- Fifth meeting to present the joint task team report and recommendation(s) to program managers within Ecology, RL, and WHC for approval.


Laura Russell
Washington Department of Ecology


Paul J. Krupin
U. S. Department of Energy


Ed Smith
Westinghouse Hanford Company

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Exhibit E

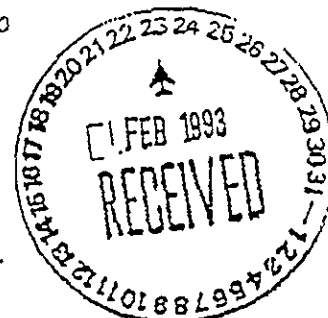
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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

February 19, 1993



TO: All Hazardous Waste Staff
FROM: Tom Eaton *Tom Eaton*
SUBJECT: Contained-in Policy

Many of you have recently heard about EPA's contained-in policy for contaminated environmental media. EPA's contained-in policy has been articulated over the years in a series of letters and memos from EPA Headquarters and regions. In a November 13, 1986 memo from Marcia Williams, EPA states, "...ground water contaminated with hazardous waste leachate is still subject to regulations since it contains a hazardous waste...the treatment, storage, or disposal of ground water contaminated with hazardous waste leachate must be handled as if the ground water itself were hazardous...however, if the ground water is treated such that it no longer contains a hazardous waste (it) would no longer be subject to regulation under Subtitle C of RCRA."

The contained-in policy is based on an EPA determination that although environmental media are usually not solid wastes, they frequently enter the RCRA system due to contamination by RCRA listed hazardous wastes. The contained-in policy states that environmental media, such as soils and groundwater, contaminated with a RCRA listed hazardous waste must be managed as if the media were hazardous waste until it no longer contains the hazardous waste or is delisted. Under EPA's current policy, contaminated environmental media may be determined to no longer contain hazardous waste when the hazardous constituents in the media fall below site-specific, risk-based levels and the media does not exhibit a characteristic. The contained-in policy is not a waiver from the requirement to designate material per WAC 173-303-070.

All contained-in determinations must be based on statistically adequate site-specific data and must, at a minimum, consider the concentration and risk of each constituent for which the hazardous waste was listed and any possible breakdown products. It is the responsibility of the facility to provide data of adequate quality and quantity. As interim policy, risk-based action levels should be established using residential standards calculated under the Model Toxics Control Act. Contingent management (i.e. allowing application of the contained-in policy provided the media is managed in a specific manner which further reduces risk to human health or the environment) may be considered when appropriate. In some cases, Ecology may determine that contingent

All Hazardous Waste Staff

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February 19, 1993

management requirements allow the site-specific, risk-based action levels to be calculated according to the MTCA industrial standards.

Contained-in determinations should consider the overall risk posed by the contaminated environmental media, including relevant site-specific factors as well as hazardous constituents. The policy should be applied equitably and consistently with regard to the required scientific analysis and risk management procedures. All contained-in determinations should be well documented. Please keep in mind, the State cannot make contained-in determinations regarding RCRA hazardous waste listings for which we are not authorized (i.e. F032). Contained-in determinations for non-authorized waste codes may be referred to EPA Region 10.

Contained-in determinations should be relayed to the facility by letter or order, signed by the Regional Solid and Hazardous Waste Program Section Supervisor, or the Section Supervisor in the Nuclear and Mixed Waste Program or the Industrial Section. Until additional guidance is available, please send all contained-in decisions through Elizabeth McManus for review prior to issuance.

I believe the contained-in policy is a strong tool which will be especially useful at closure and post-closure sites. Attached are three recent EPA letters which clarify their use of the policy. A subgroup of the Northwest Corrective Action Workgroup has assumed the task of preparing a document regarding the appropriate use of the contained-in policy in EPA Region 10. This memo will serve as the State interim guidance on implementation of the contained-in policy and will be reevaluated when EPA regional guidance becomes available. Our representative on the subgroup and contact for this policy is Elizabeth McManus. Please contact her at (206) 493-9506 if you have any questions. I would like you and your staff to become familiar with this policy and I encourage you to implement it whenever reasonable and appropriate.

CE:EM:yvm
Attachment

Exhibit F

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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Web Site: <http://www.ecology.wa.gov> (202) 455-6000

WASHINGTON STATE

August 2, 1982

TO: Persons Interested in Hazardous Waste

FROM: Rod Smith, Assistant Director
Office of Land Programs

SUBJECT: Technical Information Memorandum No. 82-5: Effective Date of
90-Day Storage Requirements

REFERENCE: WAC 173-303-200

PROBLEM STATEMENT:

A question has arisen that designation of an "unanticipated" waste may take into the 90-day period allowed for a determination to store the waste without a permit.

PROBLEM DISCUSSION:

The on-site storage time clock will start at the time that a generator has adequate knowledge to designate his waste as a dangerous waste. The determination can depend on testing and analysis data which the generator is obtaining. Once the generator obtains the data and determines that his waste is designated, then at that point, the 90-day on-site storage period would begin. This excludes the time necessary for analysis and designation of suspected waste.

RLS:sc